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

Philip Zakko
Erin A. Baker
Christian M. Huber
Corinn Gehrke
Brett J. Friedman

See next page for additional authors

Follow this and additional works at: https://scholarlyworks.beaumont.org/orthopaedic_surgery_confabstract

Part of the Orthopedics Commons
Authors
Philip Zakko, Erin A. Baker, Christian M. Huber, Corinn Gehrke, Brett J. Friedman, and Michael A. Flierl
THURSDAY - FRIDAY

### 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, FAAOS  
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  
Geoffrey H. 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.