

or deep tissue cultures, empirical therapy prior to culture results may be indicated in patients with sepsis or cellulitis surrounding PODU. The objective of this retrospective case series is to develop an institutional protocol for empirical therapy of PODU when indicated based on local microbiology results.

**Methods.** Hospitalized adults with PODU from 1 August 2005 to 1 August 2015 at Palmetto Health hospitals in Columbia, SC were identified. PODU was defined based on clinical, radiographic, and microbiology criteria. Descriptive statistical methods (Fisher's exact) were used for preliminary analysis.

**Results.** Seventy-five cases with PODU were included with a mean age of 53 years and male predominance (48; 64%). The most common comorbidities were paraplegia (45, 60%), diabetes (23, 31%) and previous strokes (17, 23%). Forty-nine cases (65%) received antibiotics within a year of PODU. Prior infections or colonization with *P. aeruginosa* within the past year was present in 24/75 (32%) cases. Most cases had multiple sources of cultures: blood (61; 81%), bone/deep tissue (37; 49%), and/or superficial (73; 97%). Among a total of 99 clinical isolates, 56 (57%) were Gram-positive cocci (GPC) and 43 (43%) were Gram-negative bacilli (GNB). The most common organisms were *Enterobacteriaceae* (26; 26%), coagulase negative staphylococci (CONS) (20, 20%), *Staphylococcus aureus* (19, 19%), [12 (12%) methicillin-resistant *S. aureus*], and *P. aeruginosa* (9, 9%). Of the *Enterobacteriaceae*, 69% (18/26) were susceptible to ciprofloxacin and 88% (23/26) to ceftriaxone. All cases (9/9) of PODU due to *P. aeruginosa* had a prior infection/colonization with *P. aeruginosa* within 1 year as compared with 15/66 (23%) in those with PODU due to other organisms ( $P = 0.001$ ).

**Conclusion.** The microbiology of PODU is diverse (including GPC and GNB). Prior positive *P. aeruginosa* culture was a predictor of *P. aeruginosa* PODU. When empirical antimicrobial therapy is indicated, data support the use of intravenous vancomycin plus ceftriaxone in the absence of prior infection/colonization with *P. aeruginosa*, or intravenous vancomycin plus an anti-pseudomonal agent in the presence of prior *P. aeruginosa* within the past year.

**Disclosures.** All authors: No reported disclosures.

## 226. Clinical and Epidemiological Aspects Related to Infection of Orthopedic Prostheses in Argentinean Children. A 10-Year Period Study

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**Session:** 45. Clinical: Bone and Joint Infection

**Thursday, October 5, 2017: 12:30 PM**

**Background.** Management of orthopedic prostheses infections (PI) in children is a main challenge, not only for the complexity of the disease but also for the scarce of evidence in this field.

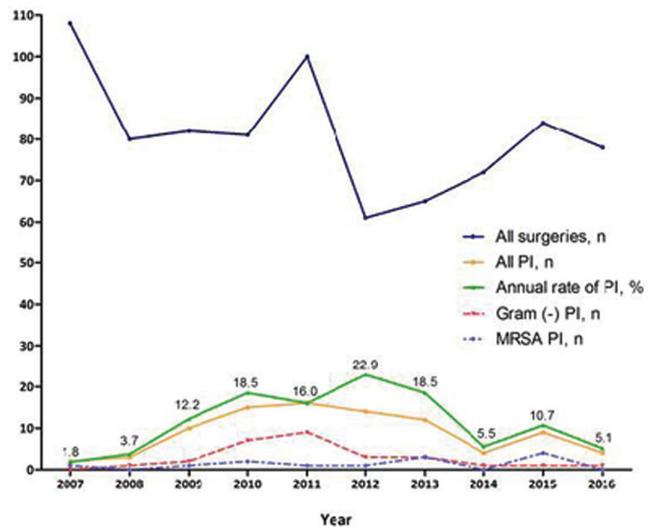
**Objectives.** To describe the burden of PI and to analyze clinical and epidemiological aspects in pediatric patients.

**Methods.** Retrospective study in a tertiary pediatric hospital. Clinical charts of patients <18 years who underwent surgery for bone and/or joint implantation at "R. Gutiérrez" Children's Hospital in Buenos Aires from January 2007 to December 2016 were reviewed, and all PI cases were analyzed. PI was defined as early (E) when presentation was within 3 months of prosthesis implantation, delayed (D) when presenting between 3–24 months and late (L) if presenting beyond 2 years.

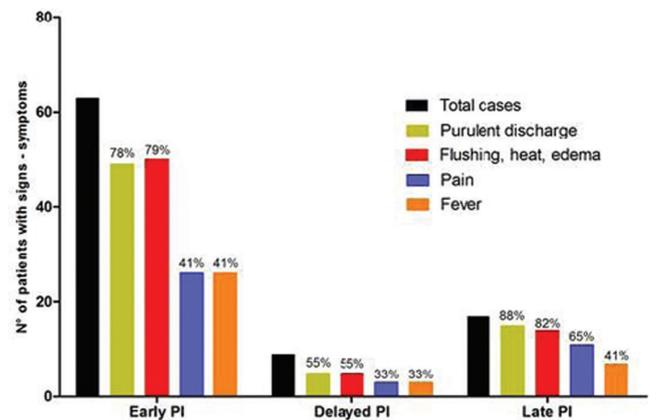
**Results.** 811 surgeries performed; 89 PI detected: E(n = 63); D(n = 9), L(n = 17); 58% male; median(m) age: 13 years (range[r] 4–20); m hospital stay 30 days (r 6–180). Annual incidence: 11% (CI95%: 8.9–13.1) (Figure 1). Underlying conditions: scoliosis (58.4%), malignancy (16.8%). Clinical features are detailed in Figure 2. Bacterial isolation in 63 (70.8%) cases, 51 (57.3%) with a single microorganism (Figure 3). Gram(+) bacteria were isolated in 58% of E PI, 86% of D PI and 49% of L PI. Gram(-) pathogens in 49% of E PI and in 38% of L PI. Three febrile PI (3,4%) had Gram(+) bacteremia, two of them L PI. No differences were seen in white blood cell count (WBC) and C-reactive protein(CRP) levels on admission in children with and without bacteremia, nor among the different types of PI; m WBC 9000/mm<sup>3</sup> (r 3200–25550), m CRP 37 mg/l (r 1–270). WBC on admission in MRSA PI was significantly higher,  $P < 0.01$ . Duration of EV treatment was different according to type of microorganism ( $P 0.03$ ), higher in PI by Gram(-). Forty-eight (53.9%) cases continued with trimethoprim-sulfamoxazole orally, without side effects requiring its discontinuation. Total treatment duration (m): 189 days (r 28–756). Eighty-two children (92.1%) underwent surgical toilette, 37 (45.1%) required more than one. Six (6.7%) presented relapse and eight (9%) reinfection.

**Conclusion.** PI in children is a considerable burden, with high morbidity. Incidence of bacteremia was low. Results of the study could help to delineate preventive strategies and improve decision making in PI in children.

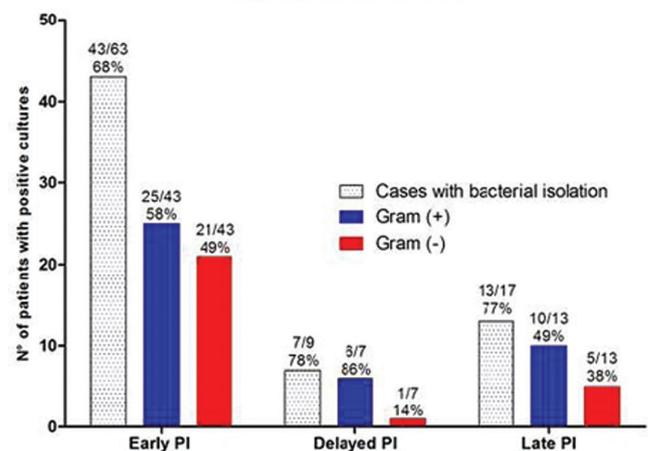
**Fig. 1. Prosthesis infections by year**



**Fig. 2. Clinical manifestations**



**Fig. 3. Bacterial isolation**



**Disclosures.** All authors: No reported disclosures.

227. **Epidemiology and Clinical Features of Septic Arthritis in Children**  
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