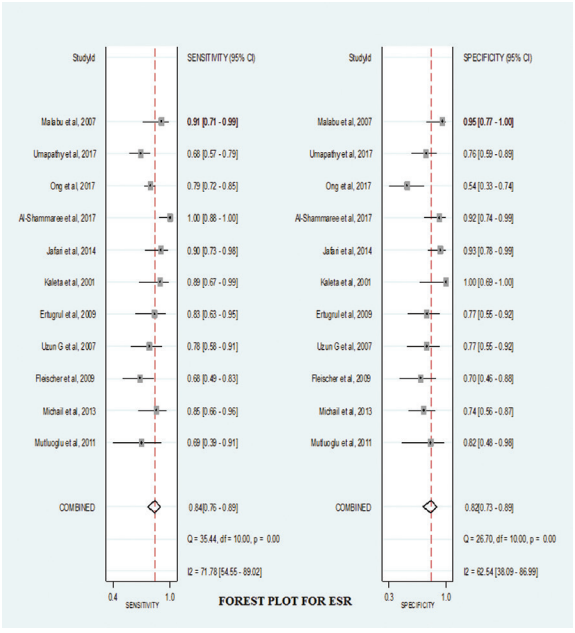
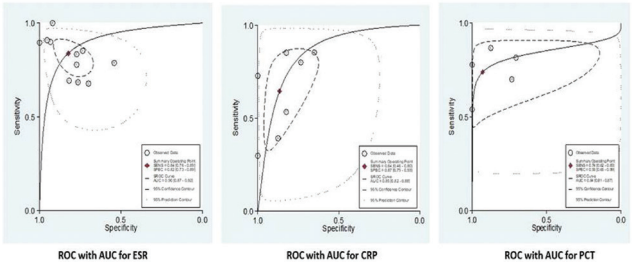
sensitivity and specificity for CRP were found to be 0.64 (95% CI 0.46–0.80) and 0.87 (95% CI 0.75–0.93) with AUROC of 0.85 (95% CI0.82–0.88). Pooled sensitivity and specificity for PCT were 0.74 (95% CI 0.62–0.83) with AUROC of 0.84 (95% CI 0.81–0.87).

Conclusion. ESR could be beneficial in ruling out infection in persons who have low suspicion of disease. For those who have high suspicion of disease, PCT could be helpful in ruling in infection. Clinicians should avoid ordering both ESR and CRP because role of CRP is limited. All inflammatory markers need standardization of threshold levels for detecting infection.

Study	Sample size	ESR					CRP					Procalcitonin				
		Cut off value (mm/hr)	No. of results TP/FN	FP/TN	Sensitivity (%)	Specificity (%)	Cut off value (mg/dl)	No. of results TP/FN	FP/TN	Sensitivity (%)	Specificity (%)	Cut off value (ng/ml)	No. of results TP/FN	FP/TN	Sensitivity (%)	Specificity (%)
Ong *et al.*	24 for NIDFU, 179 for IDFU	40 (ULN)	141/38	11/13	80	55	10 (ULN)	70/109	3/21	39	89	NS				
Umapathy *et al.*	34 for NIDFU, 76 for IDFU	40.4*	52/24	8/26	68*	76*	35.8*	41/36	6/28	53*	82*	0.5	41/35	0/34	54	100
Al-Shammaree *et al.*	25 for NIDFU, 30 for IDFU	31.5	30/0	2/23	100	93	NS					0.06 (66.55pg/dl)	26/4	4/22	88	87
Jafari *et al.*	30 for NIDFU, 30 for IDFU	≥40.5	27/3	2/28	90	94	≥7.1	24/6	8/22	80	74	0.21	21/9	8/22	70	74
Michail *et al.*	34: soft tissue infection, 27: OM	67	23/4	9/26	84	75	1.4	23/4	6/28	85	83	0.3	22/5	10/24	81	71
Mutluoglu *et al.*	13: OM, 11: no OM	47	9/4	2/9	73	85	NS					NS				
Fleischer *et al.*	34 OM, 20 cellulitis	>60	23/11	6/14	68	70	>3.2	29/5	7/13	85	65	NS				
Ertugrul *et al.*	24 OM, 22 without OM	≥70	20/4	17/5	83	77	NS					NS				
Jeandrot *et al.*	23 grade 1, 22 grade 2	NS					17	16/6	0/23	73	100	NS				
Malabu *et al.*	22 OM, 21 cellulitis	70	20/2	0.32/2 0.68	90	94	NS					NS				
Uzun *et al.*	27 IDFU group. 22 NIDFU group	40.5	21/6	5/17	77	77	32.1	8/19	0/22	29	100	0.08	21/6	0/22	77	100
Kaleta *et al.*	19 OM, 10 cellulitis	≥70	17/2	0/10	90	100	NS					NS				

Table 1: Data extracted from 2 x 2 table of individual studies.
Notes: All numbers have been rounded off to the nearest whole number. **Abbreviations:** NIDFU: non infected diabetic foot ulcer, IDFU: infected diabetic foot ulcer, ULN: upper limit of normal, TP: true positive, FN: false negative, FP: false positive, TN: true negative, *: Data personally requested from authors, OM: osteomyelitis





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

303. Clinical Characteristics and Outcomes of Patients Naïve Septic Arthritis Caused by Methicillin-Resistant *Staphylococcus aureus*

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Session: 54. Bone and Joint Infections
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Background. To evaluate the clinical characteristics and outcomes of patients with naïve septic arthritis caused by methicillin-resistant Staphylococcus aureus (MRSA).

Methods. We conducted a retrospective review of adult patients with naïve septic arthritis at three tertiary-care hospitals from 2005 through 2017.

Results. Of the 101 patients with S. aureus naïve septic arthritis, 39 (38.6%) was identified MRSA. Compared with patients with methicillin-susceptible Staphylococcus aureus (MSSA), patients with MRSA presented more frequently with nosocomial infection (1.6% vs. 17.9%; $P = 0.005$), and inappropriate antibiotics within 48h (0% vs. 74.4%; $P < 0.001$). The overall 30-day mortality was 4% and tended to be higher in MRSA group (1.6% vs. 7.7%; $P = 0.296$). The treatment failure was 23.8%, which was higher in the MRSA group (35.9% vs. 16.1%; $P = 0.031$). The independent risk factors for treatment failure were end-stage of renal disease with hemodialysis (odds ratio [OR] = 32.073; 95% confidence interval [CI]: 2.669–385.372; $P = 0.006$) and antibiotics duration less than 6 weeks (OR = 4.987; 95% CI: 1.204–20.662; $P = 0.027$)

Conclusion. MRSA septic arthritis was associated with more frequent nosocomial infection and delayed treatment compared with MSSA septic arthritis. Antibiotic therapy, for less than 6 weeks, may be cautioned for S aureus septic arthritis until better outcomes are assured.

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

304. Comparison of Short and Long Courses of Antibiotics in Patients with Prosthetic Joint Infection: A Systemic Review and Meta-analysis

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Session: 54. Bone and Joint Infections
Thursday, October 4, 2018: 12:30 PM

Background. Current guidelines for treatment of prosthetic joint infection (PJI) suggest a combination of intravenous (IV) antibiotics for 2–6 weeks and oral antibiotics for 3–6 months. However, recent studies did not find significant benefits from prolonged use of antibiotics for patients with PJI. We conducted a systemic review and meta-analysis to assess the outcomes of short- and long-term antibiotics in patients with PJI.

Methods. We designed three queries to retrieve literature of PJI from PubMed and Embase databases until December 2017. Each query comprised medical subject headings, title/abstract keywords, and exclusion terms. Two reviewers independently screened literature for three rounds and disagreements were resolved by a third reviewer. Quality of a cohort study and that of a randomized control trial (RCT) were assessed by Newcastle-Ottawa Quality Assessment Form and a modified Jadad scale respectively.

Results. A total of 3,309 studies were retrieved, and nine observation studies and one RCT were included for final analysis (Figure 1). Nine of the 10 studies investigated total hip arthroplasty and/or total knee arthropathy, while one study further included shoulder, elbow, and ankle arthroplasty. Five studies focused on patients receiving debridement and implant retention (DAIR) procedure, three studies on staged exchange arthroplasty (SEA), and two studies on mixed procedures. Eight of the 10 studies were graded as good or fair quality. All of the 10 studies found equivalent outcomes in patients prescribed with short- and long-term antibiotics, regardless of IV or oral form of antibiotics. The aggregate odds ratio (OR) in our meta-analysis was 1.04 (95% CI, 0.70, 1.55), showing no significant difference in outcomes between short-term and long-term antibiotics (Figure 2).

Conclusion. Our meta-analysis demonstrated that patients prescribed with short-term antibiotics for PJI had similar outcomes when compared with those prescribed with long-term antibiotics.

Figure 1. Flow diagram for selection of articles for systemic review