JNI 23es Journées Nationales d'Infectiologie
Bordeaux
et la région Aquitaine
Palais des Congrès
du mercredi 15 juin 2022
au vendredi 17 juin 2022

Nouvelles stratégies médicales dans la prise en charge des IOA en 2022

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Université Paris Saclay

Liens d'intérêt

- Ménarini
- Shionogi
- Pfizer
- MSD

Antibiothérapie probabiliste

Outcome and Predictors of Treatment Failure in Total Hip/Knee Prosthetic Joint Infections Due to *Staphylococcus aureus*

Eric Senneville, Donatienne Joulie, Laurence Legout, Michel Valette, Hervé Dezèque, Eric Beltrand, Bernadette Roselé, Thibaud d'Escrivan, Caroline Loïez, Michèle Caillaux, Yazdan Yazdanpanah, Carlos Maynou, and Henri Migaud

Centre National de Référence des Infections Ostéo-Articulaires Nord-Ouest, Roger Salengro Faculty Hospital of Lille, Lille, France

- Etude rétrospective 98 patients
- Infection prothèse genou et hanche à Staph aureus
- Suivi moyen 4 ans
- FDR d'échec (univarié): ATB post opératoire non adaptée

Background. Variables associated with the outcome of patients treated for prosthetic joint infections (PJIs) due to *Staphylococcus aureus* are not well known.

Methods. The medical records of patients treated surgically for total hip or knee prosthesis infection due to *S. aureus* were reviewed. Remission was defined by the absence of local or systemic signs of implant-related infection assessed during the most recent contact with the patient.

Results. After a mean posttreatment follow-up period of 43.6 ± 32.1 months, 77 (78.6%) of 98 patients were in remission. Retention of the infected implants was not associated with a worse outcome than was their removal. Methicillin-resistant *S. aureus* (MRSA)–related PJIs were not associated with worse outcome, compared with methicillin-susceptible *S. aureus* (MSSA)–related PJIs. Pathogens identified during revision for failure exhibited no acquired resistance to antibiotics used as definitive therapy, in particular rifampin. In univariate analysis, parameters that differed between patients whose treatment did or did not fail were: American Society of Anesthesiologists (ASA) score, prescription of adequate empirical postsurgical antibiotic therapy, and use of rifampin combination therapy upon discharge from hospital. In multivariate analysis, ASA score ≤2 (odds ratio [OR], 6.87 [95% confidence interval {CI}, 1.45–32.45]; $P = .04$) and rifampin-fluoroquinolone combination therapy (OR, 0.40 [95% CI, 0.17–0.97]; $P = .01$) were 2 independent variables associated with remission.

Conclusions. The results of the present study suggest that the ASA score significantly affects the outcome of patients treated for total hip and knee prosthetic infections due to MSSA or MRSA and that rifampin combination therapy is associated with a better outcome for these patients when compared with other antibiotic regimens.

Antibiothérapie post-opératoire immédiate

- **Si pas de documentation pré opératoire**
- **Cibler : Staph doré, strepto, entérocoque, entérobactérie.**
- **Tenir compte écologie du service**

Recommandation 20

AE	Il est recommandé de prescrire : vancomycine et pipéracilline-tazobactam ou vancomycine et céphalosporine de 3e génération (ceftriaxone ou cefotaxime) en attendant l'identification microbiologique.

HAS

Cohorte PIANO : ATB empirique individualisée

- **n=783 (27 centres)**

Table 2 Suggested empiric antibiotic therapy for prosthetic joint infections according to timing of presentation

	Early post-operative	Late acute	Chronic
Not septic	Vancomycin plus a Gram-negative agent†	Cefazolin	Withhold therapy pending culture results
Septic‡	Vancomycin plus a Gram-negative agent	Vancomycin plus a Gram-negative agent	Vancomycin plus an anti-Gram-negative agent

†The anti-Gram-negative agent should be ciprofloxacin, cefepime or gentamicin, according to local antimicrobial stewardship policies and drug availability.

‡Meaning infection plus consequent acute organ failure, as per Sepsis-3 definitions.[8]

Davis J. *et al.* Int J Med Int 2022

Durées de traitement

Durées de traitement

Antibiotic treatment for 6 weeks versus 12 weeks in patients with pyogenic vertebral osteomyelitis: an open-label, non-inferiority, randomised, controlled trial

*Louis Bernard, Aurélien Dinh, Idir Ghout, David Simo, Valerie Zeller, Bertrand Issartel, Vincent Le Moing, Nadia Belmatoug, Philippe Lesprit, Jean-Pierre Bru, Audrey Therby, Damien Bouhour, Eric Dénes, Alexa Debard, Catherine Chirouze, Karine Fèvre, Michel Dupon, Philippe Aegerter, Denis Mulleman, on behalf of the Duration of Treatment for Spondylodiscitis (DTS) study group**

	6-week regimen	12-week regimen	Difference in proportion of patients*	95% CI
Intention-to-treat analysis, n	176	175		
Cured	160 (90·9%)	159 (90·9%)	+0·1	−6·2 to 6·3
Cured and alive†	156 (88·6%)	150 (85·7%)	+2·9	−4·2 to 10·1
Cured without further antibiotic treatment‡	142 (80·7%)	141 (80·6%)	+0·1	−8·3 to 8·5
Per-protocol analysis, n	146	137		
Cured	137 (93·8%)	132 (96·4%)	−2·5	−8·2 to 2·9
Cured and alive†	133 (91·1%)	126 (92·0%)	−0·9	−7·7 to 6·0
Cured without further antibiotic treatment‡	NA	NA	NA	NA

Lancet 2015

ORIGINAL ARTICLE

Antibiotic Therapy for 6 or 12 Weeks for Prosthetic Joint Infection

L. Bernard, C. Arvieux, B. Brunschweiler, S. Touchais, S. Ansart, J.-P. Bru, E. Oziol, C. Boeri, G. Gras, J. Druon, P. Rosset, E. Senneville, H. Bentayeb, D. Bouhour, G. Le Moal, J. Michon, H. Aumaître, E. Forestier, J.-M. Laffosse, T. Bégué, C. Chirouze, F.-A. Dauchy, E. Devaud, B. Martha, D. Burgot, D. Boutoille, E. Stindel, A. Dinh, P. Bemer, B. Giraudeau, B. Issartel, and A. Caille

Analysis	6-Wk Therapy	12-Wk Therapy	Risk Difference	Adjusted Risk Difference*
	no. of patients with event/total no. (%)		*Percentage points (95% CI)*	
Modified intention-to-treat				
Main analysis in which missing outcomes for patients who were lost to follow-up were considered to be persistent infections and data from patients who died removed†	35/193 (18.1)	18/191 (9.4)	8.7 (1.8–15.6)	9.0 (2.3–15.7)
Sensitivity analyses in which data from patients who were lost to follow-up or died were removed†				
Analysis in which all persistent infections were counted	32/190 (16.8)	15/188 (8.0)	8.9 (2.2–15.6)	9.1 (2.6–15.5)
Post hoc analysis in which only persistent infections that were diagnosed after 6 weeks of antibiotic therapy were counted‡	29/187 (15.5)	13/186 (7.0)	8.5 (2.1–15.1)	8.8 (2.5–15.0)
Per-protocol§				
Analysis in which all persistent infections were counted	29/165 (17.6)	11/160 (6.9)	10.7 (3.6–17.9)	10.6 (3.7–17.5)
Post hoc analysis in which only persistent infections that were diagnosed after 6 weeks of antibiotic therapy were counted¶	27/163 (16.6)	11/160 (6.9)	9.7 (2.7–16.8)	9.7 (2.9–16.5)

NEJM 2021

Durées de traitement : individualisation ?

Subgroup	6-Wk Therapy	12-Wk Therapy	Risk Difference (95% CI)
	no. of patients with event/total no. (%)		*percentage points*
All patients	32/190 (16.8)	15/188 (8.0)	8.9 (2.2 to 15.6)
Surgical procedure			
Débridement	23/75 (30.7)	11/76 (14.5)	16.2 (2.9 to 29.5)
Two-stage revision	6/40 (15.0)	2/41 (4.9)	10.1 (–3.1 to 23.3)
One-stage revision	3/75 (4.0)	2/71 (2.8)	1.2 (–4.8 to 7.1)
Affected joint			
Hip	19/122 (15.6)	9/117 (7.7)	7.9 (–0.2 to 16.0)
Knee	13/68 (19.1)	6/71 (8.5)	10.7 (–0.9 to 22.2)
Episode of prosthetic joint infection			
First	27/162 (16.7)	13/160 (8.1)	8.5 (1.4 to 15.7)
At least the second	5/28 (17.9)	2/28 (7.1)	10.7 (–7.0 to 28.4)

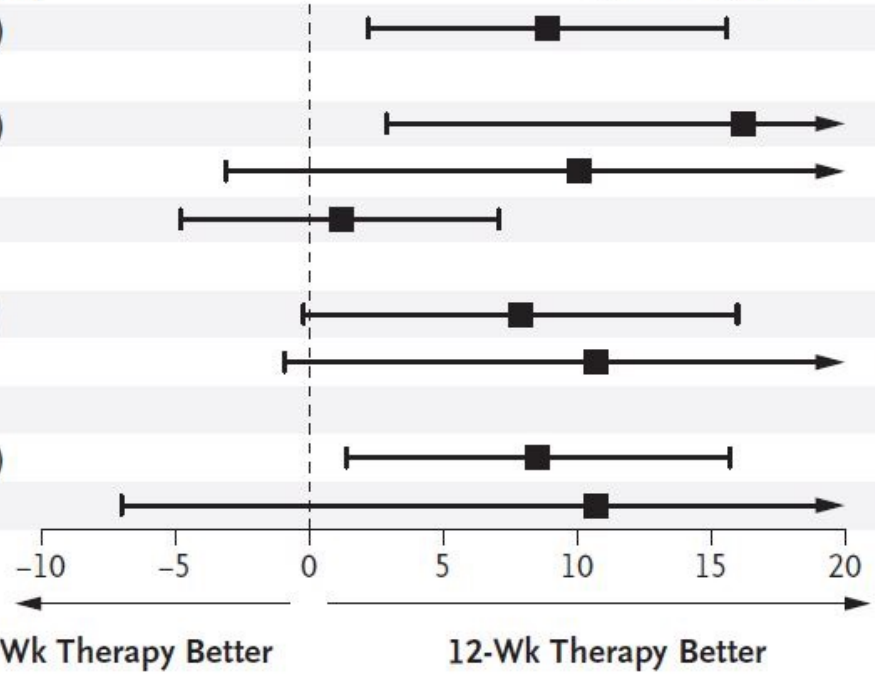


Figure 2. Exploratory Subgroup Analyses of Persistent Infection within 2 Years after the Completion of Antibiotic Therapy (Primary Outcome).

Relais per os

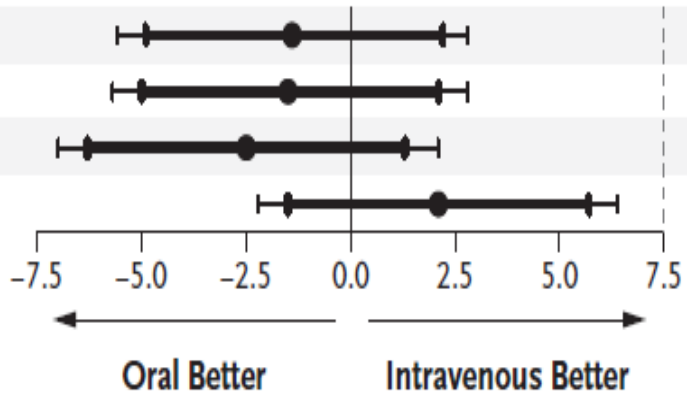
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Oral versus Intravenous Antibiotics for Bone and Joint Infection

H.-K. Li, I. Rombach, R. Zambellas, A.S. Walker, M.A. McNally, B.L. Atkins, B.A. Lipsky, H.C. Hughes, D. Bose, M. Kümin, C. Scarborough, P.C. Matthews, A.J. Brent, J. Lomas, R. Gundle, M. Rogers, A. Taylor, B. Angus, I. Byren, A.R. Berendt, S. Warren, F.E. Fitzgerald, D.J.F. Mack, S. Hopkins, J. Folb, H.E. Reynolds, E. Moore, J. Marshall, N. Jenkins, C.E. Moran, A.F. Woodhouse, S. Stafford, R.A. Seaton, C. Vallance, C.J. Hemsley, K. Bisnauthsing, J.A.T. Sandoe, I. Aggarwal, S.C. Ellis, D.J. Bunn, R.K. Sutherland, G. Barlow, C. Cooper, C. Geue, N. McMeekin, A.H. Briggs, P. Sendi, E. Khatamzas, T. Wangrangsimakul, T.H.N. Wong, L.K. Barrett, A. Alvand, C.F. Old, J. Bostock, J. Paul, G. Cooke, G.E. Thwaites, P. Bejon, and M. Scarborough, for the OVIVA Trial Collaborators*

Subgroup	Oral Group	Intravenous Group	Risk Difference (90% CI; 95% CI)
	patients with treatment failure/ total no. of participants		
Intention-to-treat population	70.0/527	77.3/527	−1.4 (−4.9 to 2.2; −5.6 to 2.9)
Modified intention-to-treat population	67/509	74/506	−1.5 (−5.0 to 2.1; −5.7 to 2.8)
Per-protocol population	61/466	69/443	−2.5 (−6.3 to 1.3; −7.0 to 2.1)
Worst-case sensitivity analysis	85/527	74/527	2.1 (−1.5 to 5.7; −2.2 to 6.4)

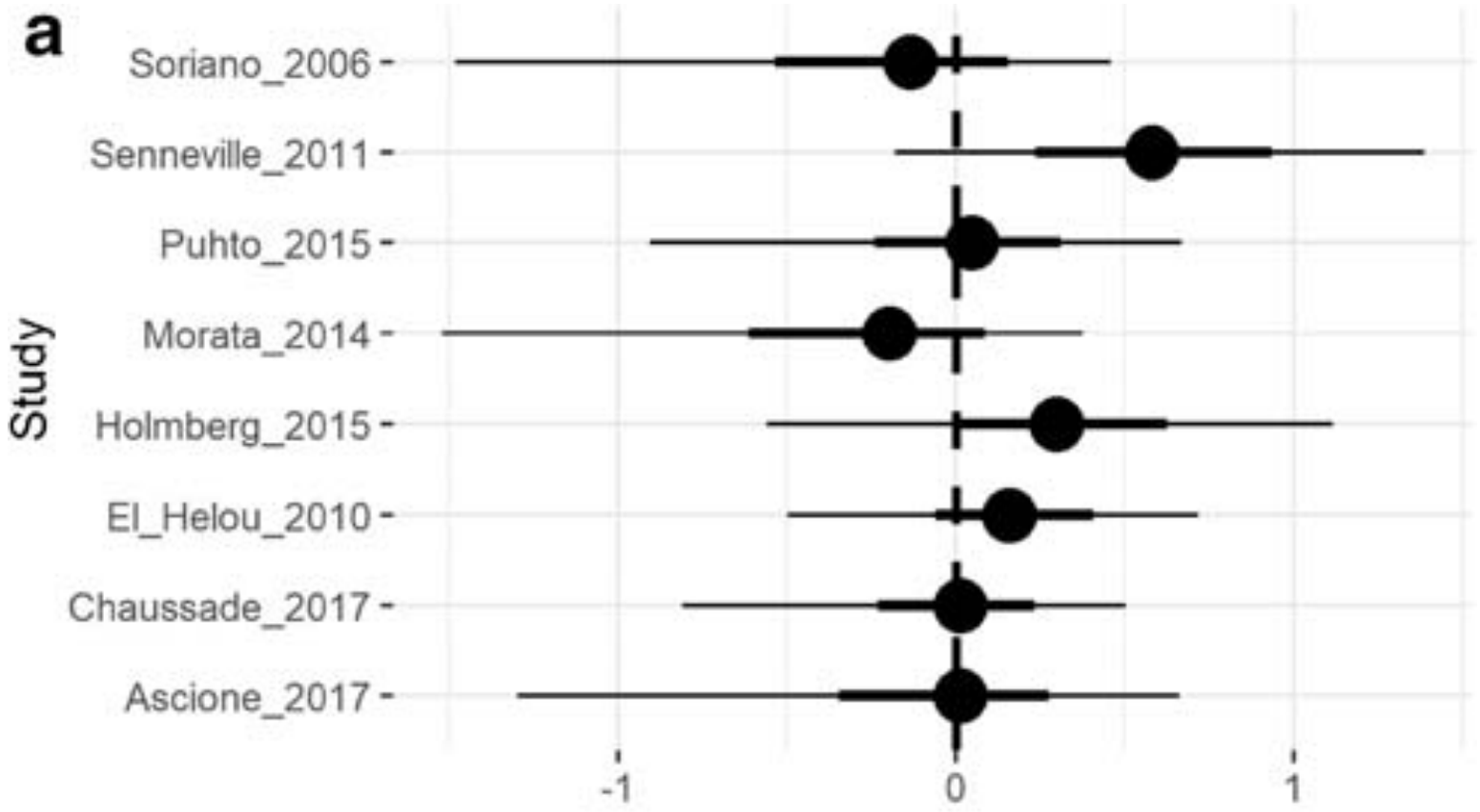


NEJM 2019

Un vieil antibiotique

Rifampin-accompanied antibiotic regimens in the treatment of prosthetic joint infections: a frequentist and Bayesian meta-analysis of current evidence

Ozlem Aydın [1] · Pinar Ergen [1] · Burak Ozturan [2] · Korhan Ozkan [2] · Ferhat Arslan [1] · Haluk Vahaboglu [1]



Open Forum Infectious Diseases
MAJOR ARTICLE

Predictors of Treatment Success After Periprosthetic Joint Infection: 24-Month Follow up From a Multicenter Prospective Observational Cohort Study of 653 Patients

Davis J. *et al* OFID 2022

Table 5. Factors Associated With Treatment Success in Patients With Periprosthetic Infection Managed With Debridement, Antibiotics and Implant Retention as the Main Management Strategy Within 90 Days of Diagnosis (n = 352)

	OR Rx Success	95% CI	*P*	aOR	95% CI	*P*
Age	0.988	0.968–1.008	.259			
Presentation type (vs early)						
Late-acute (n = 163)	0.26	0.15–0.46	<.001			
Chronic (n = 44)	0.16	0.07–0.35	<.001			
Early presentation type (vs all others)	**4.26**	**2.47–7.36**	**<.001**	**2.99**	**1.57–5.71**	**.001**
Time post implant (months)[a]	0.987	0.982–0.992	<.001			
Duration of Sx (days)	0.984	0.970–0.997	.02			
Symptom duration <21 days	**3.34**	**1.45–7.69**	**.005**	**6.32**	**2.01–19.49**	**.001**
Symptom duration <7 days	1.71	1.01–2.89	.03			
Extensive debridement	1.45	0.70–1.88	.592			
Change of liners	1.07	0.63–1.80	.808			
Staphylococcus aureus vs all others	**0.49**	**0.32–0.77**	**.002**	**0.39**	**0.22–0.68**	**.001**
Knee vs all others	0.41	0.26–0.66	<.001			
Duration of IV ABs	0.99	0.97–1.00	.109			
Duration of PO ABs	1.004	0.993–1015	.474			
Received rifampicin	1.10	0.71–1.71	.67			
Received rifampicin if Gram positive	1.25	0.85–1.85	.55			
Received ciprofloxacin	1.01	0.65–1.57	.96			
Received ciprofloxacin if Gram negative	1.49	0.42–5.24	.54			
Body mass index (kg/m^2)	1.02	0.99–1.05	.234			
At least 1 comorbidity	**0.43**	**0.27–0.67**	**<.001**	**0.44**	**0.24–0.76**	**.003**
Baseline CRP	0.997	0.995–0.999	<.001			
Baseline CRP >100	0.49	0.29–0.82	.007			
Decreasein CRP baseline to day 90 (absolute)	0.997	0.994–0.999	.007			
Decreasein CRP baseline to day 90 (%)	1.005		.232			
Decrease in CRP by ≥50% (%)	1.62	0.48–5.49	.434			
Baseline albumin	**1.05**	**1.01–1.09**	**.007**	**1.05**	**1.006–1.095**	**.008**

Clinical Infectious Diseases

MAJOR ARTICLE

If, When, and How to Use Rifampin in Acute Staphylococcal Periprosthetic Joint Infections, a Multicentre Observational Study

Mark Beldman,[1] Claudia Löwik,[1] Alex Soriano,[2] Laila Albiach,[2] Wierd P. Zijlstra,[3] Bas A. S. Knobben,[4] Paul Jutte,[1] Ricardo Sousa,[5] André Carvalho,[5] Karan Goswami,[6] Javad Parvizi,[6] Katherine A. Belden,[7] and Marjan Wouthuyzen-Bakker[8]

	Total patient group (n= 669)		
	Rifampin (n = 407)	No rifampin (n = 262)	*P* value
Baseline characteristics			
Male sex	43.5% (177/407)	43.9% (115/262)	.92
Age >80 years	23.4% (95/406)	18.3% (47/257)	.12
BMI >30 kg/m^2	48.1 % (177/368)	55.6% (138/248)	.07
Medical history			
Diabetes	20.6% (84/407)	17.9% (47/262)	.39
Renal failure	6.9% (28/407)	6.9% (18/262)	.99
COPD	18.4% (75/407)	15.6% (41/262)	.35
Liver cirrhosis	3.7% (15/407)	5.3% (14/262)	.30
Malignancy	14.3% (58/407)	14.5% (38/262)	.93
Rheumatoid arthritis	7.4% (30/407)	3.3% (22/262)	.63
Characteristics implant			
Primary	83% (338/407)	80.5% (206/256)	.40
Cemented	77.3% (310/401)	64.7% (152/235)	.001
Fracture as indication prosthesis	15.5% (63/407)	16.5% (42/254)	.72
Clinical presentation			
Serum CRP >115 mg/L	31.1% (124/399)	34.3% (87/254)	.40
Serum Leucocytes >12 cells/µL	28.5% (113/396)	26.9% (60/223)	.66
Late acute PJI	3.2% (13/406)	15.4% (39/253)	<.001
Identified micro-organism			
Staphylococcus aureus	61.9% (252/407)	56.9% (149/262)	.19
Polymicrobial	37.8% (154/407)	37.8% (99/262)	.98
Surgical treatment			
Exchange modular components	45.6% (182/399)	45.2% (104/230)	.92
DAIR >4 wks after surgery[a]	18.6% (73/393)	19.6% (42/214)	.75

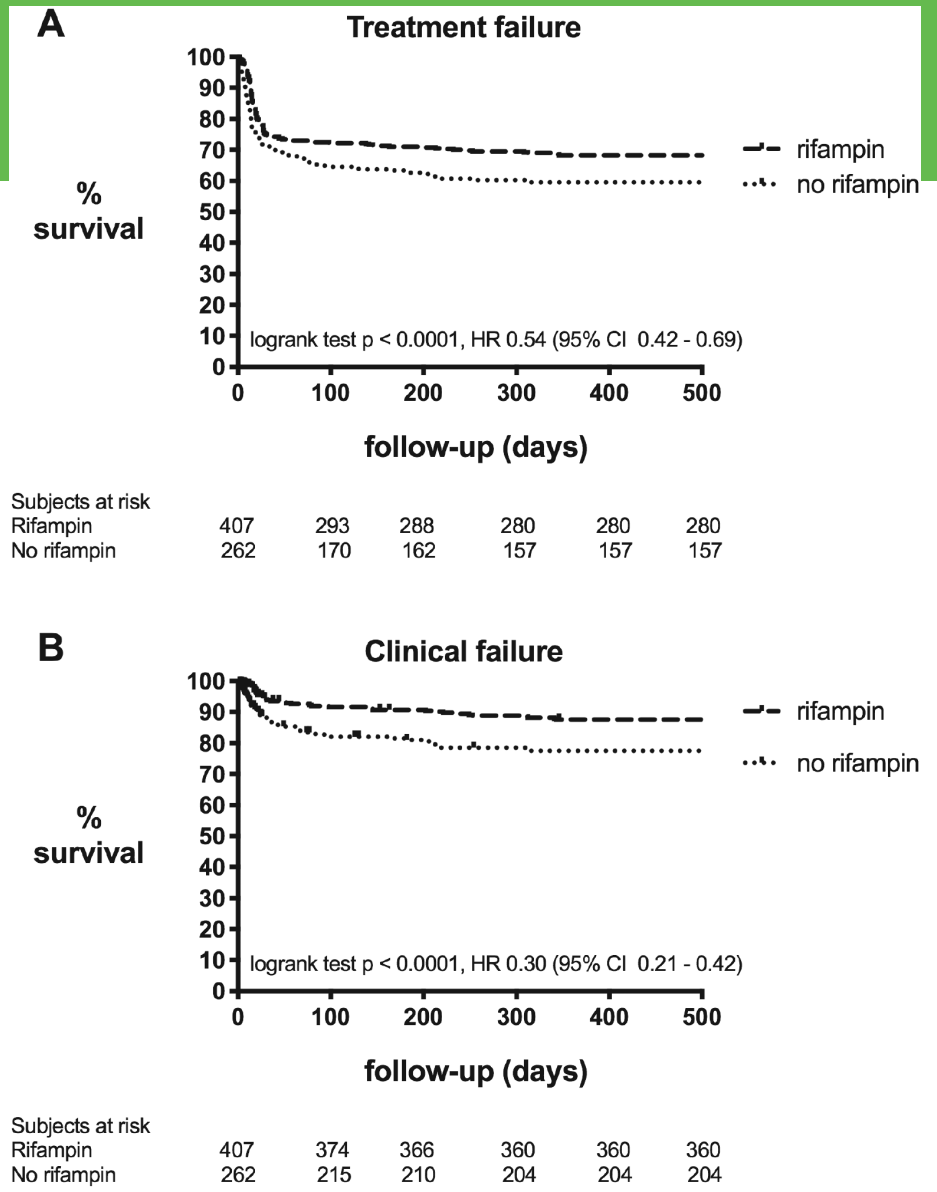


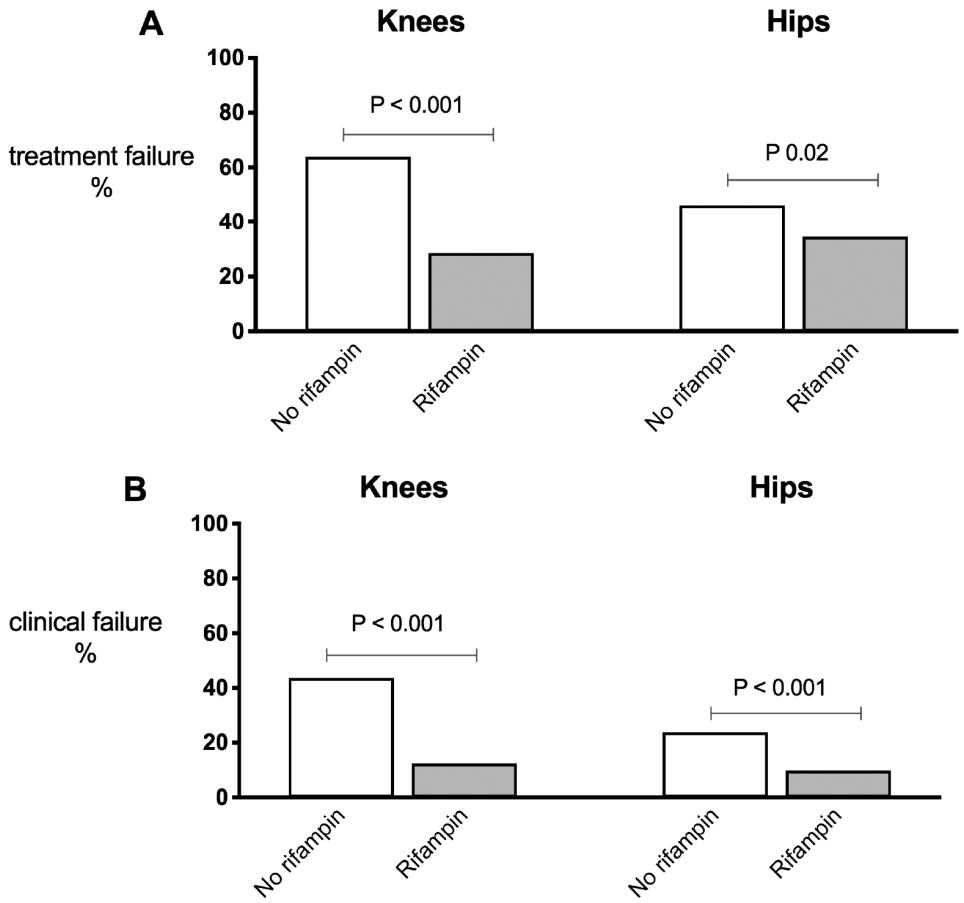
Figure 1. Treatment failure (A) and clinical failure (B) rifampin versus no-rifampin according to the type of joint.

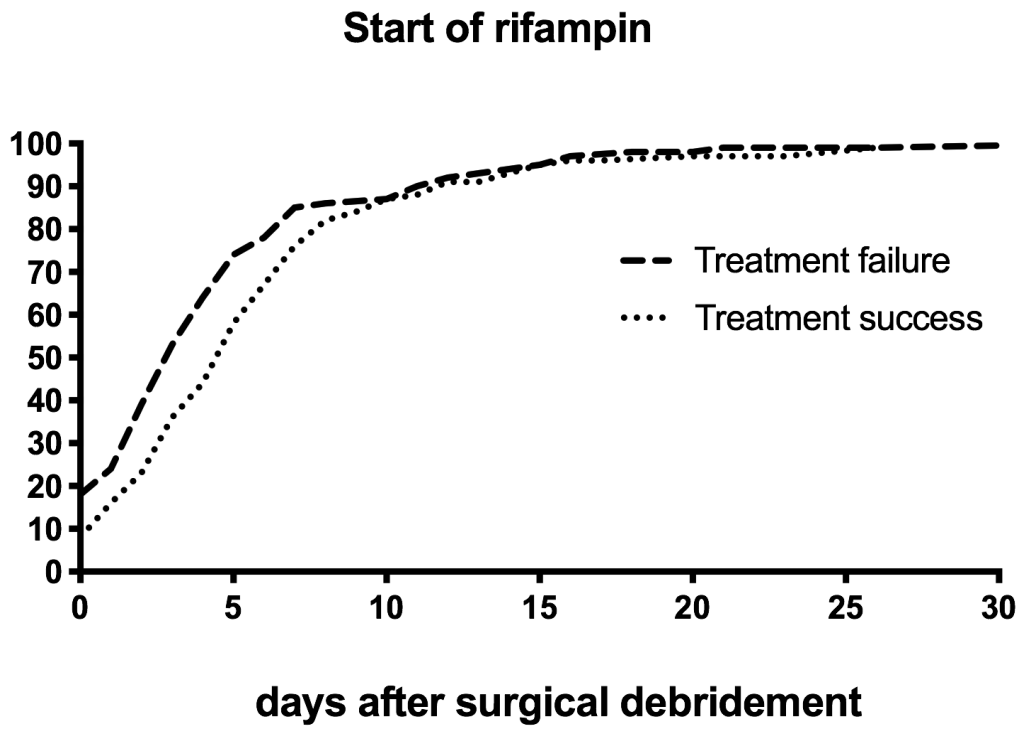
Clinical Infectious Diseases

MAJOR ARTICLE

If, When, and How to Use Rifampin in Acute Staphylococcal Periprosthetic Joint Infections, a Multicentre Observational Study

Mark Beldman,[1] Claudia Löwik,[1] Alex Soriano,[2] Laila Albiach,[2] Wierd P. Zijlstra,[3] Bas A. S. Knobben,[4] Paul Jutte,[1] Ricardo Sousa,[5] André Carvalho,[5] Karan Goswami,[6] Javad Parvizi,[6] Katherine A. Belden,[7] and Marjan Wouthuyzen-Bakker[8]

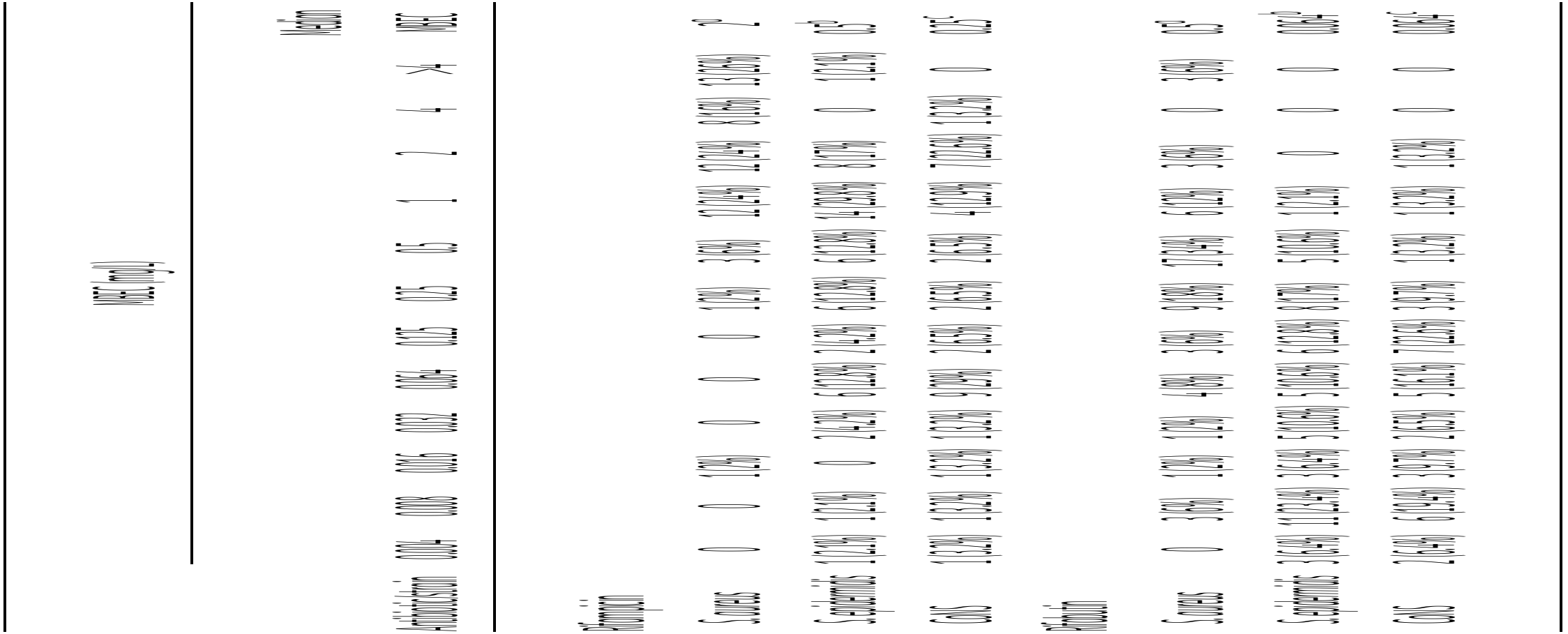




Clinical Infectious Diseases, 10 May 2021

Rifabutin versus rifampicin bactericidal and antibiofilm activities against clinical strains of *Staphylococcus* spp. isolated from bone and joint infections

Pauline Thill [1]*, Olivier Robineau [1,2], Gabrielle Roosen[3], Pierre Patoz[3], Benoit Gachet[1,2], Barthélémy Lafon-Desmurs[1], Macha Tetart[1], Safia Nadji[3], Eric Senneville[1,2] and Nicolas Blondiaux[3,4]



Nouveaux antibiotiques

Review

Dalbavancin for the Treatment of Prosthetic Joint Infections: A Narrative Review

Luis Buzón-Martín [1,2,*], Ines Zollner-Schwetz [3], Selma Tobudic [4], Emilia Cercenado [5,6,7] and Jaime Lora-Tamayo [2,8,9]

Antibiotics 2021

Dalbavancin treatment for prosthetic joint infections in real-life: a national cohort study and literature review

Morgan Matt[a], Clara Duran[a], Johan Courjon[b], Romain Lotte[c], Vincent Le Moing[d], Boris Monnin[d], Patricia Pavese[e], Pascal Chavanet[f], Lydie Khatchatourian[g], Pierre Tattevin[h], Vincent Cattoir[i], Catherine Lechiche[j], Gabriella Illes[k], Flore Lacassin-Beller[k], Eric Senneville[l], Aurélien Dinh[a,*], on behalf of the Dalbavancin French Study Group

JGAR 2021

Reference	*n*	Bone & Joint Infection (Other than PJI)	Episodes of PJI	PJI Outcome (Success, %)
Bouza et al., 2017 [51]	69	13	20	80%
Morata et al., 2019 [50]	64	NP	26	NP
Tobudic et al., 2019 [45]	72	20	8	75%
Wunsch et al., 2019 [49]	101	30	32	94%
Martín et al., 2019 [48]	16	0	16	88%
Dinh et al., 2019 [52]	75	48	NP	NP

NP: not provided. PJI: prosthetic joint infection.

antibiotics

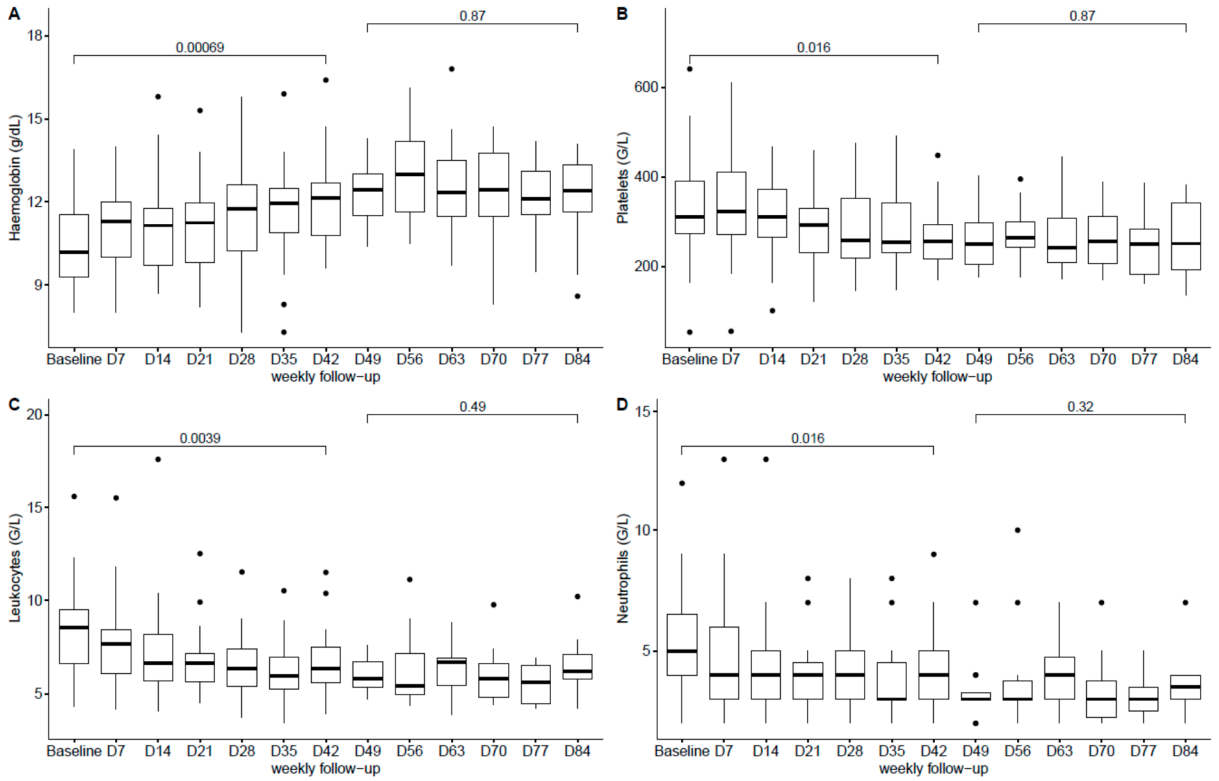
MDPI

Article

Tolerance of Prolonged Oral Tedizolid for Prosthetic Joint Infections: Results of a Multicentre Prospective Study

Eric Senneville [1,2,3,*], Aurélien Dinh [4,5], Tristan Ferry [6,7], Eric Beltrand [3,8], Nicolas Blondiaux [3,9] and Olivier Robineau [1,2,3]

Etude prospective multicentrique
33 patients infection prothèse ostéo articulaires :
hanche (*n* = 19), genou (*n* = 13) et épaule (*n* = 1)
DAIR (33.3%), changement en 1 et 2 temps 17/5 (51.5%/15.2%),
Bactéries : *Staphylococci* et *enterococci*
Durée moyenne de ttt 8.0 ± 3.27 semaines(6–12).
Arrêt prématuré chez 6 patients (18.2%)
Intolerance au TZD (*n* = 2),
2 cas d'anémie (hémorragie)
2 échecs septiques



Safety of Tedizolid as Suppressive Antimicrobial Therapy for Patients With Complex Implant-Associated Bone and Joint Infection due to Multidrug-Resistant Gram-Positive Pathogens: Results From the TediSAT Cohort Study

Tristan Ferry,[1,2,3] Anne Conrad,[1,2,3] Eric Senneville,[4,5,6] Sandrine Roux,[1,2] Céline Dupieux-Chabert,[1,2,3] Aurélien Dinh,[7,8] Sébastien Lustig,[2,9] Sylvain Goutelle,[1,2,10] Thomas Briot,[1,2] Truong-Thanh Pham,[1,2,11] Florent Valour[1,2,3]

Cohorte prospective multicentrique

17 patients

ATB suppressive par tedizolide

Suivi moyen 6 mois

Pas d'EIG

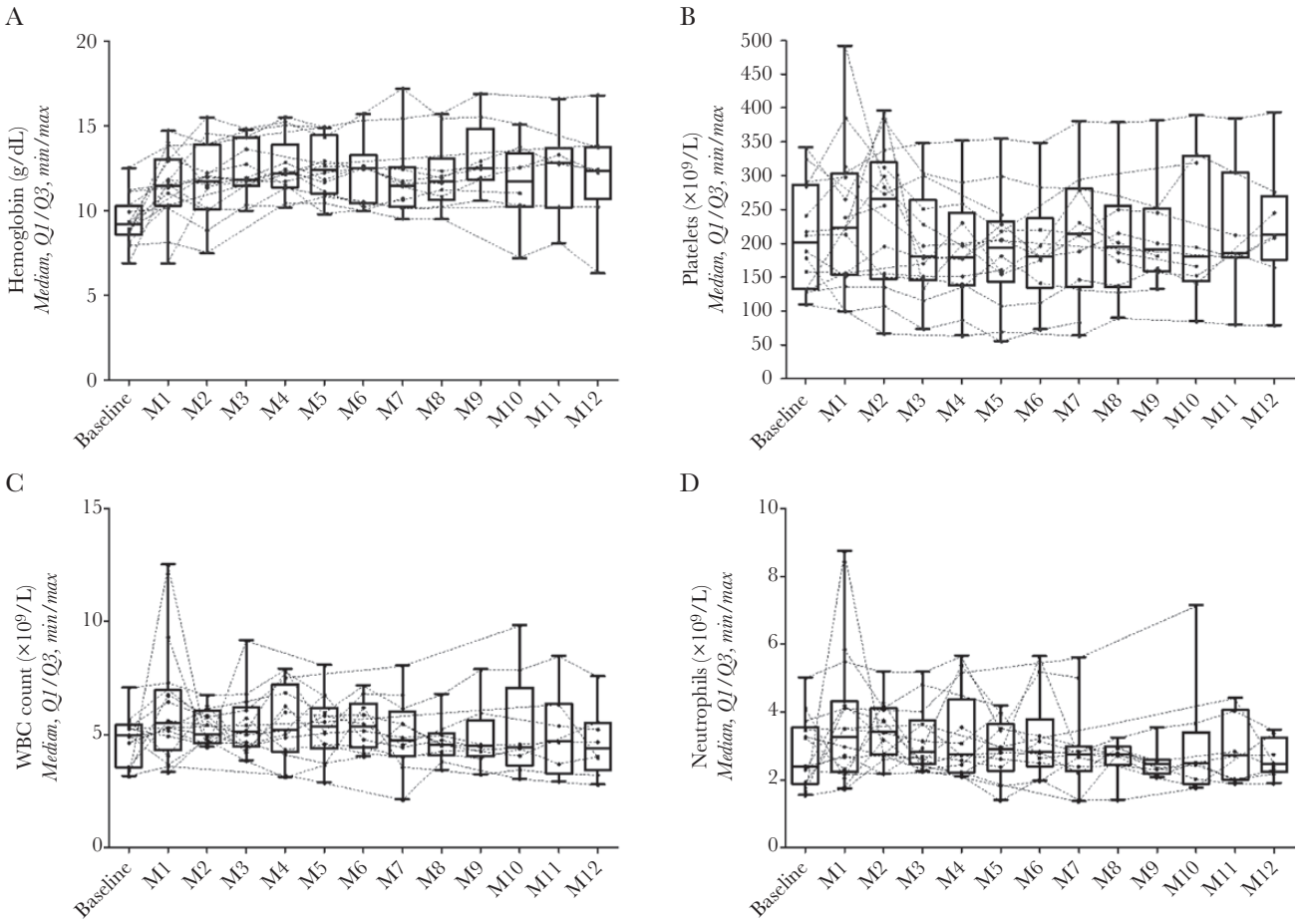
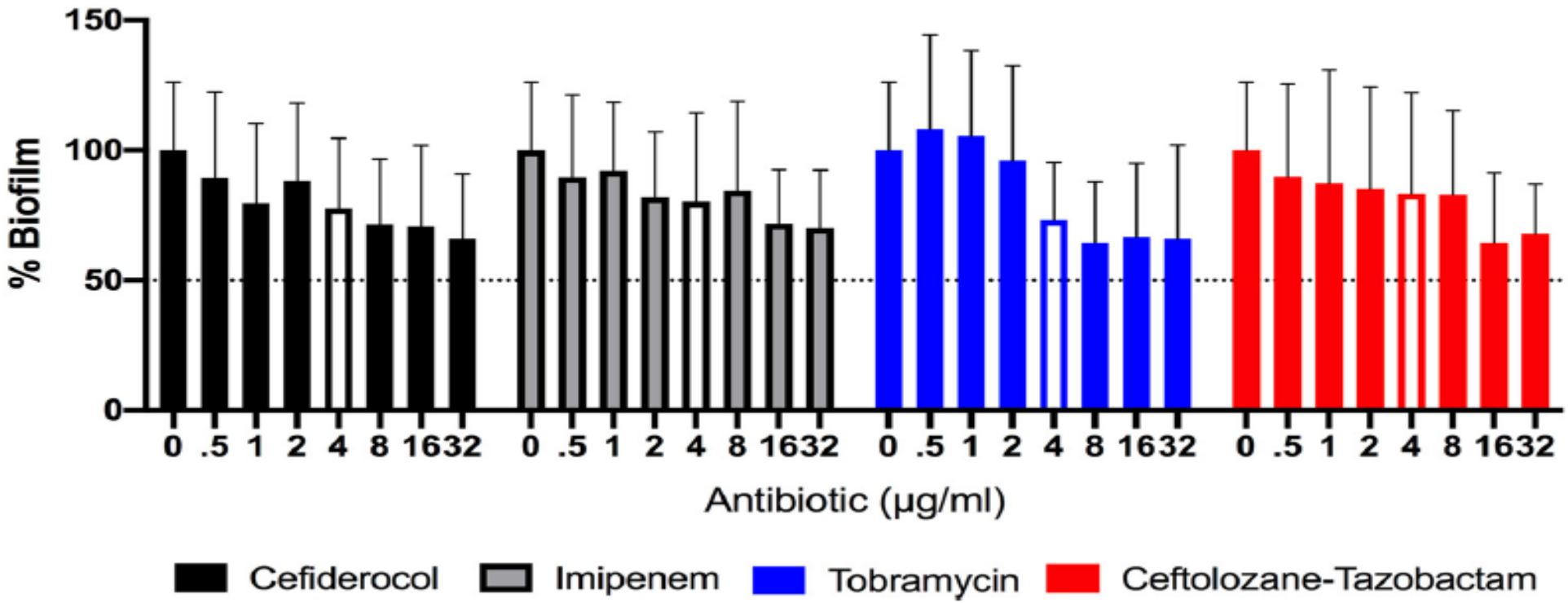


Figure 1. Evolution of hemoglobin (*A*), platelet count (*B*), white blood cell (WBC) count (*C*), and neutrophil count (*D*) during the first 12 months of suppressive antimicrobial therapy with tedizolid.

Cefiderocol Retains Antibiofilm Activity in Multidrug-Resistant Gram-Negative Pathogens

Christine A. Pybus,[a] Christina Felder-Scott,[b] Victor Obuekwe,[a] David E. Greenberg[a,c]



AAC 2021

Revue de la littérature

Etude	N patients	Types d'infection	Bactéries	Evolution
Dagher *et al.*	1	Ostéomyélite	*A. baumannii* XDR (OXA-23) *Enterococcus faecalis* *Corynebacterium striatum*	Favorable
Bleibtreu *et al.*	2	Infection ostéoarticulaire n=1 Infection sur prothèse n=1	*Enterobacter hormaechei* subsp. *Hoffmannii* XDR *K. pneumoniae* (OXA-48)	Favorable 1/2
Oliva *et al.*	1	SDI n=1	*P. aeruginosa* XDR	Favorable
Zingg *et al.*	2	Ostéomyélite n=1 Infection de matériel spinal n=1	*A. baumannii* (souches OXA-23, OXA-40 + NDM, OXA-23 + OXA-58)	Favorable 2/2
Alamarat *et al.*	1	Ostéomyélite	*P. aeruginosa* (NDM) *K. pneumoniae* (BLSE)	Favorable
Simeon *et al.*	1	Infection sur prothèse ostéoarticulaire	*Enterobacter hormaechei* subsp. *Hoffmannii* XDR	Favorable
Mabayoje *et al.*	1	Infection sur prothèse ostéoarticulaire	*A. baumannii* XDR	Favorable
Cipko *et al.*	1	Infection de matériel spinal	*A. baumannii* XDR *P. aeruginosa*	Favorable
Chavda et al.	1	IOA	*Pseudomonas aeruginosa* IMP, Morganella Morganii	Favorable
Mabayoje et al	1	IOA	*Acinetobacter baumanii* NDM	Favorable
Carney et al.	1	IOA	*E. coli* NDM	Favorable
Mesciari et al.	1	Infection sur prothèse ostéoarticulaire	*Pseudomonas aeruginosa*	Favorable
Rose et al.	1	IOA	*Acinetobacter baumanii* *Pseudomonas aeruginosa OXA 23*	Favorable

Absence d’antibiotique

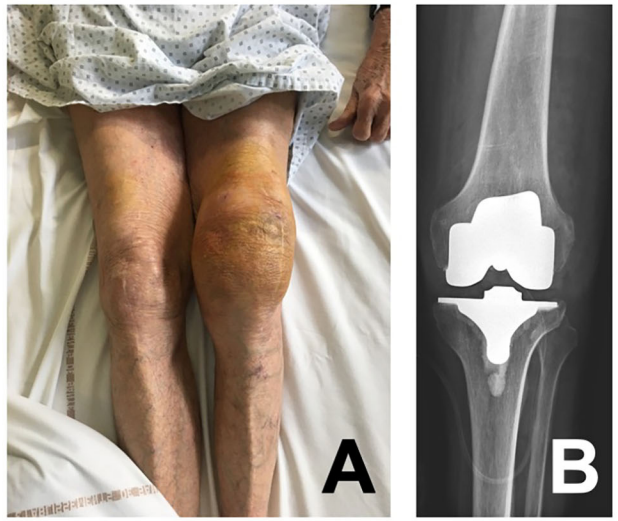
Phage Therapy as Adjuvant to Conservative Surgery and Antibiotics to Salvage Patients With Relapsing *S. aureus* Prosthetic Knee Infection

Tristan Ferry[1,2,3,4], Camille Kolenda[2,3,4,5], Cécile Batailler[2,3,6], Claude-Alexandre Gustave[2,3,4,5], Sébastien Lustig[2,3,6], Matthieu Malatray[3,6], Cindy Fevre[7], Jérôme Josse[2,3,4,5], Charlotte Petitjean[7], Christian Chidiac[1,2,3,4], Gilles Leboucher[8] and Frédéric Laurent[2,3,4,5] on behalf of the Lyon BJI Study group*

Patient ID	Age (sex)	Putative mechanism of inoculation	Time since prosthesis implantation (months)	Duration of clinical symptoms before the PhagoDAIR procedure (days)	Delay from the previous surgery performed for the current infection to the PhagoDAIR procedure (days)	Antimicrobial resistance	Successive primary antimicrobial therapies after the PhagoDAIR procedure (duration in days)	Successive SAT after the primary antimicrobial therapy(ies) until the last follow-up (duration in days)
Patient 1	80 (male)	Perioperative	40	976	One-stage exchange (1,371)	Penicillin G	Daptomycin–cloxacillin (4)* Levofloxacin–rifampin (123)	Doxycycline (45)*** Cephalexin (739)
Patient 2	84 (male)	Hematogenous	35	82	Open DAIR without PE exchange (78)	Erythromycin	Daptomycin–levofloxacin (14)** Ofloxacin–doxycycline (72)	Doxycycline (189)
Patient 3	83 (female)	Perioperative	11	122	Open DAIR without PE exchange (98)	Penicillin G	Daptomycin–cefepime–rifampin (14)** Levofloxacin–rifampin (111)	Doxycycline (200)

SAT, suppressive antimicrobial therapy; DAIR, debridement antibiotics and implant retention; PE, polyethylene.

Case Report: Arthroscopic "Debridement Antibiotics and Implant Retention" With Local Injection of Personalized Phage Therapy to Salvage a Relapsing *Pseudomonas Aeruginosa* Prosthetic Knee Infection



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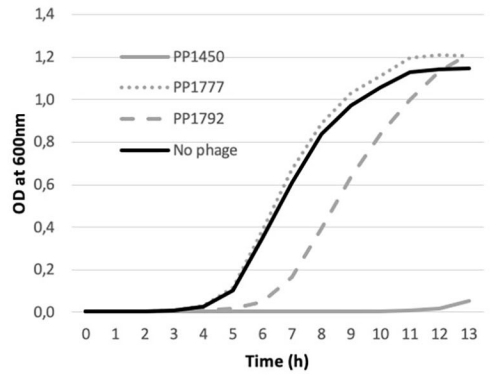

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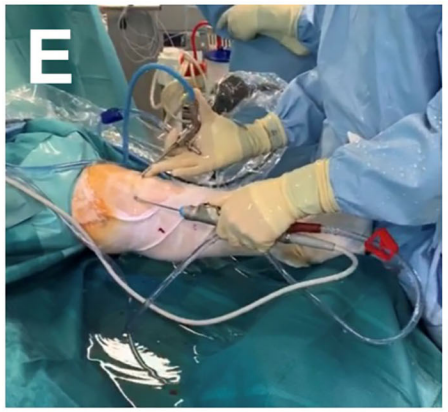
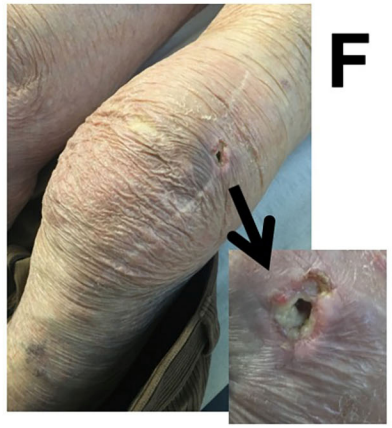
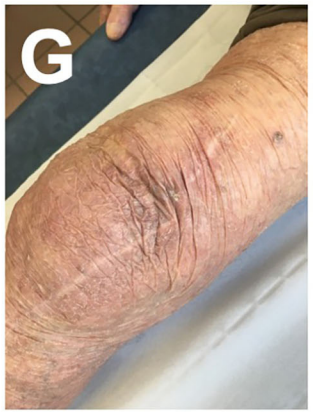
	PP1450	PP1777	PP1792
EOP	2.0×10^{-5}	4.0×10^{-6}	0
MCL (PFU/mL)	1.0×10^{7}	1.7×10^{8}	9.3×10^{8}

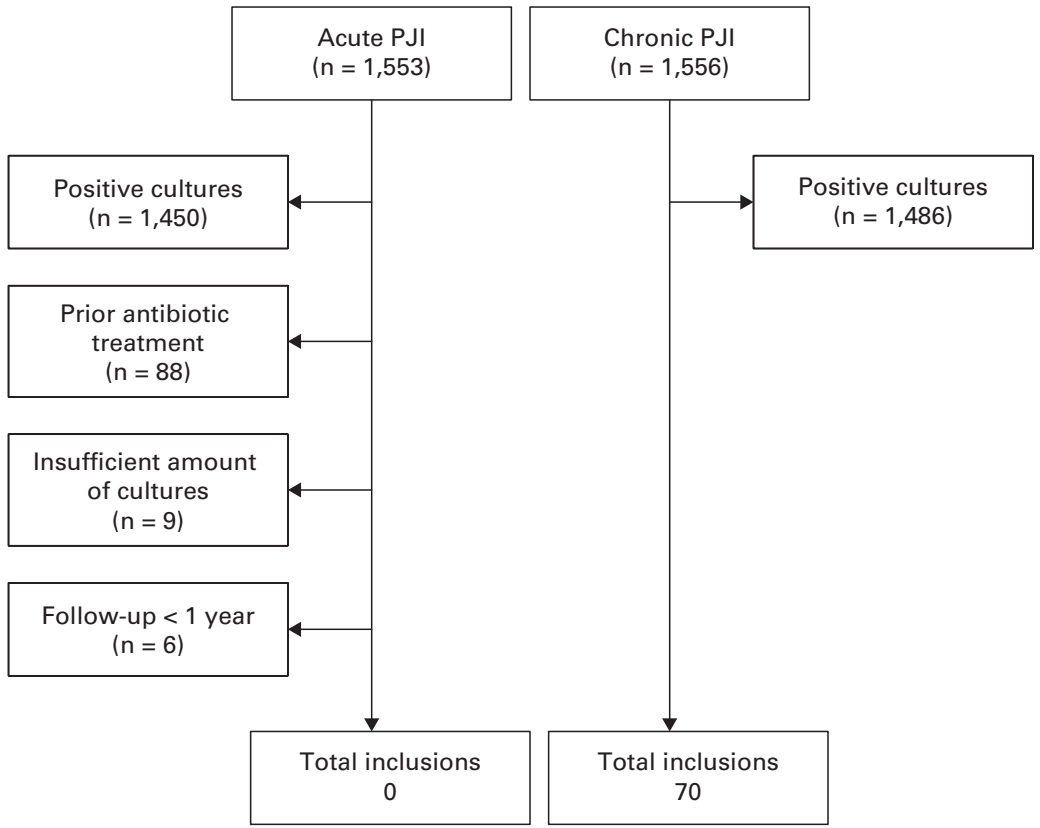


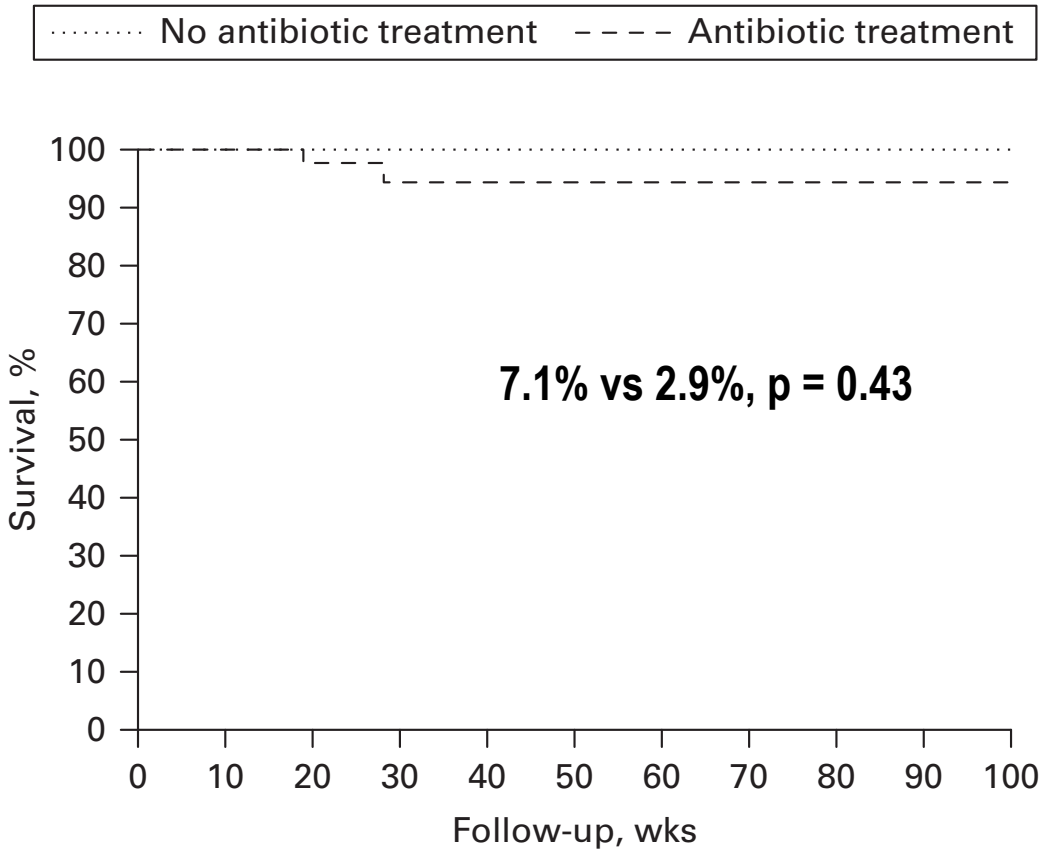




Should all patients with a culture-negative periprosthetic joint infection be treated with antibiotics?

A MULTICENTRE OBSERVATIONAL STUDY





Joint bone J. 2022

The efficacy of suppressive antibiotic treatment in patients managed non-operatively for periprosthetic joint infection and a draining sinus

Karel-Jan Dag François Lensen[1], Rosa Escudero-Sanchez[2], Javier Cobo[2], Rihard Trebše[3], Camelia Gubavu[4], Sara Tedeschi[5], Jose M. Lomas[6], Cedric Arvieux[7], Dolors Rodriguez-Pardo[8], Massimo Fantoni[9], Maria Jose Garcia Pais[10], Francisco Jover[11], Mauro José Costa Salles[12], Ignacio Sancho[13], Marta Fernandez Sampedro[14], Alex Soriano[15], Marjan Wouthuyzen-Bakker[1], and ESCMID Study Group of Implant Associated Infections (ESGIAI)+

Table 3. Primary and secondary end points of suppressive antibiotic treatment (SAT) vs. no SAT.

	SAT ($n = 63$)	No SAT ($n = 9$)	p value
Primary end point			
Prosthesis retention	79.4 %	88.9 %	0.68
Secondary end points			
Prosthetic loosening in initially fixed implants	42 %	0 %	0.08
Need for surgical debridement	6.3 %	0 %	0.44
Sinus tract closure at last follow-up	42.1 %	12.5 %	0.14
Resolution of pain	35.2 %	14.3 %	0.22
Bacteremia with same micro-organism as in PJI	3.2 %	0 %	1.00
CRP > 50 mg/L at last follow-up	12.5 %	16.7 %	0.78
CRP (mg/L) – Baseline (range) – Last follow-up (range) Difference	 32.0 (12.0–75.0) 11.7 (4.0–37.0) −12.5 (−41.0 to −0.7)	 36.5 (24.5–42.0) 23.0 (14.5–23.0) −10.5 (−22.8–10.4)	 0.93 0.26
Haemoglobin < 6 mmol/L at last follow-up	4.7 %	20 %	0.18
Haemoglobin (mmol/L) – Baseline – Last follow-up Difference	 7.1 (6.6–8.1) 7.3 (6.6–8.1) −0.1 (−0.6–0.4)	 6.83 (6.5–7.2) 6.95 (6.3–7.5) 0.06 (−0.2–0.3)	 0.90 0.94
Side effects of SAT	27 %		

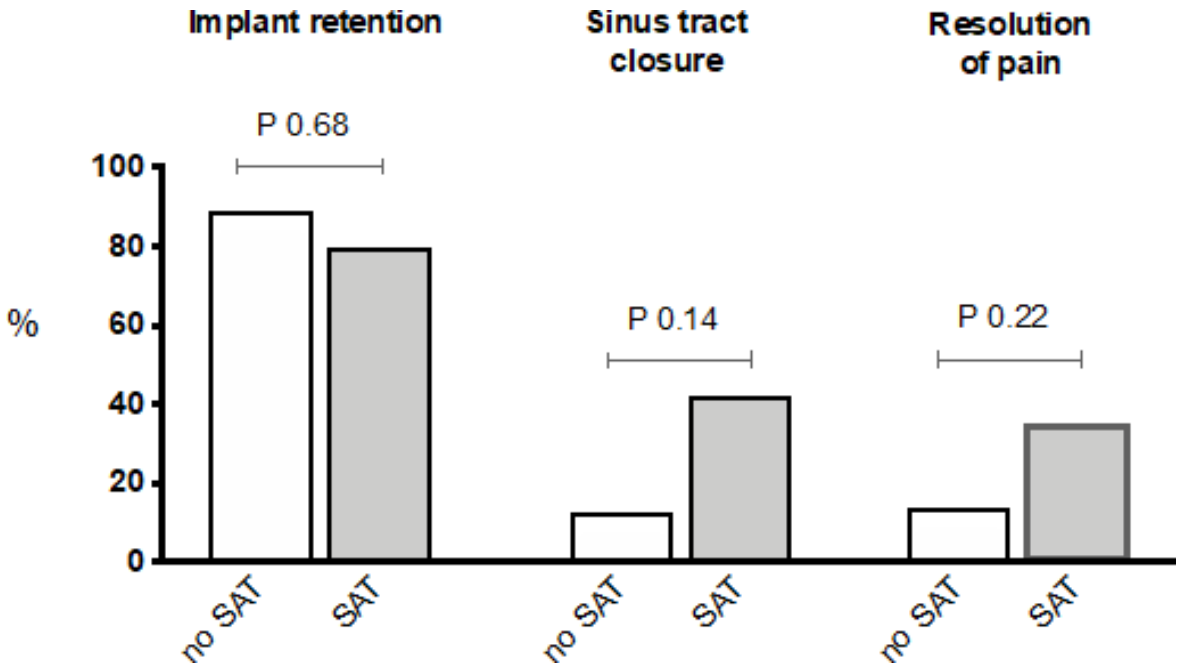


Figure 1. Clinical outcome of patients with and without SAT (suppressive antibiotic treatment).

J Bone Jt Infect. 2021

Take home message

- Antibiothérapie post opératoire : personnaliser
- Durée : 12 S /personnaliser ?
- Relais per os : simplifier
- Rifampicine : personnaliser
- Nouvelles molécules : innover
- Nouvelles stratégies non ATB : phagothérapie
- Traiter les fistules : personnaliser ?

Conclusions

- **En 2022**
  - Personnaliser
  - Simplifier
  - Générer des données


WE
LOVE
CHARLES
FESTIVAL