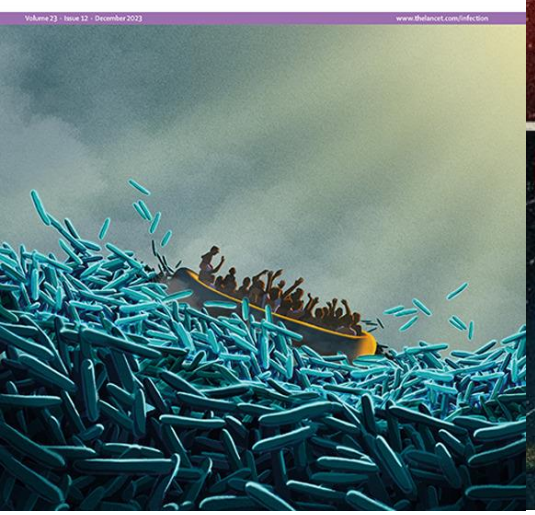
THE BEST OF 2023 SO FAR



Vendredi 22 mars 2024

GROUPE D'ÉPIDÉMIOLOGIE ET RECHERCHE EN INFECTIOLOGIE CLINIQUE CENTRE OUEST

Anne Coste, Brest
Pierre Danneels, Angers

Recommandations françaises 2023

2022 SPILF - Clinical Practice guidelines for the diagnosis and treatment of disco-vertebral infection in adults

SPILF update on bacterial arthritis in adults and children

Clinical practice recommendations for infectious disease management of diabetic foot infecti (DFI) – 2023 SPILF

Antibioprophylaxie en chirurgie et médecine interventionnelle

Special issue: Update on antibiotic guidelines of French group of pediatric infectious diseases – coordinator Robert Cohen

Recommandations internationales 2023

Global guideline for the diagnosis and management of cryptococcosis: an initiative of the ECMM and ISHAM in cooperation with the ASM

GUIDELINES
Version 12.0
October 2023
EACS European AIDS Clinical Society

The 2023 Duke-International Society for Cardiovascular Infectious Diseases Criteria for Infective Endocarditis: Updating the Modified Duke Criteria

ERS/ESICM/ESCMID/ALAT guidelines for the management of severe community-acquired pneumonia

2023 ESC Guidelines for the management of endocarditis
ESC European Society of Cardiology

ESCMID

European society of Clinical Microbiology and Infectious Diseases guidelines on diagnosis and treatment of brain abscess in children and adults

Recommandations à venir

Domaine	Thématique	Sociétés Savantes
Bactériologie	Pneumopathies infectieuses	SPILF (actualisation)
	Tuberculose	SPILF (création)
	Administrations continues	SPILF (actualisation)
	ISTs	SFD/SPILF (actualisation)
Parasito/myco	Paludisme d'importation	SPILF (actualisation)
	Infections à Candida	ESCMID (création)
Vaccination	De l'immunodéprimé	HCSP (actualisation)

Actualités épidémiques

Part des actes pour pneumopathies (SOS médecins) :

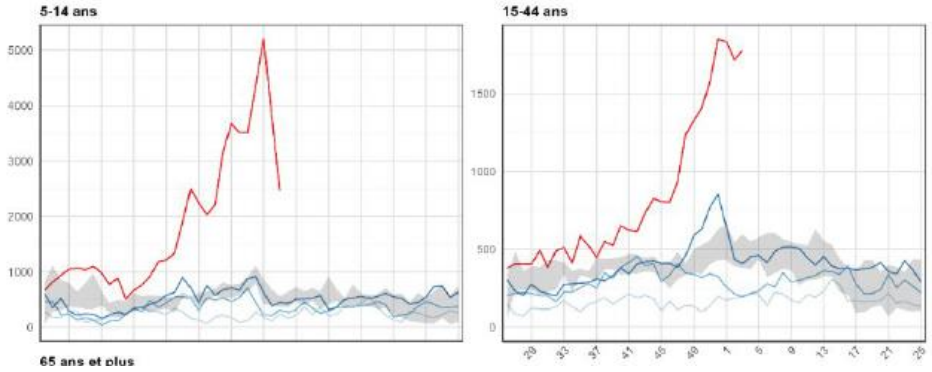
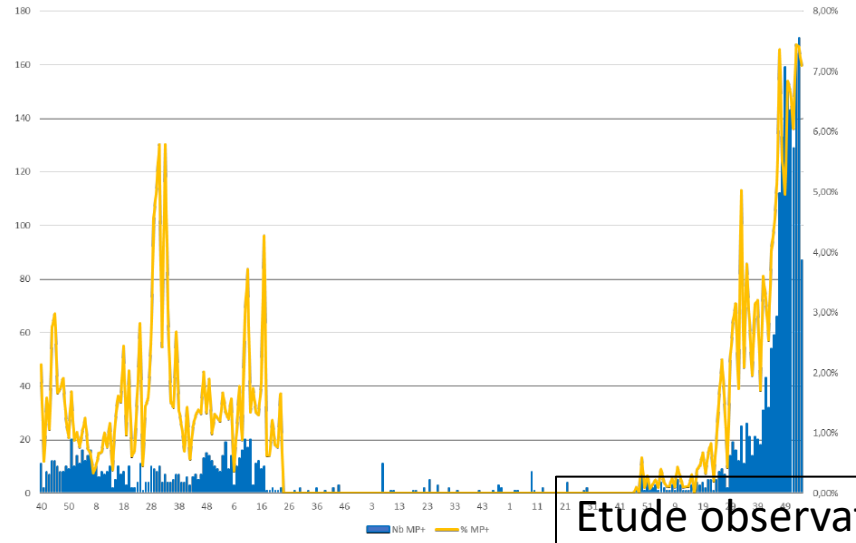


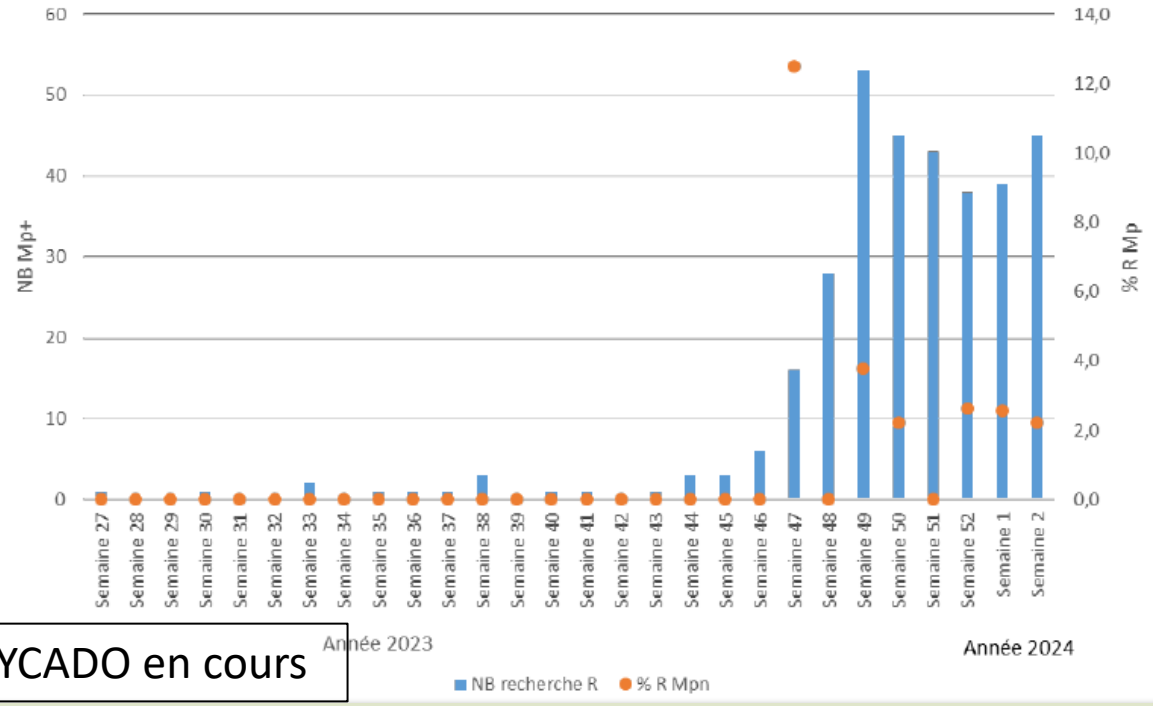
Figure 4. Nombre et taux hebdomadaire de détection par PCR de *Mycoplasma pneumoniae* tous âges confondus, semaines 40/2018 à 03/2024, réseau de laboratoires hospitaliers RENAL



Situation des infections à *Mycoplasma pneumoniae* en France au 21 janvier 2024

Santé publique France

Nb et % de souches résistantes aux macrolides



Etude observationnelle MYCADO en cours

Actualités épidémiques

THREAT ASSESSMENT BRIEF

Measles on the rise in the EU/EEA: considerations for public health response

16 February 2024

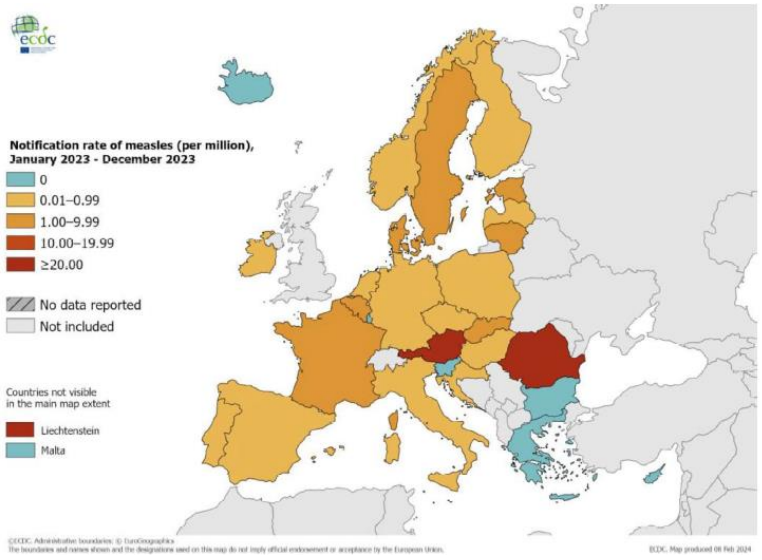
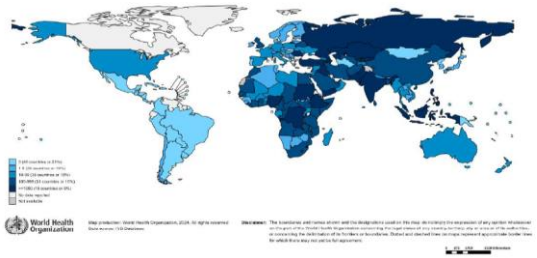


Figure 1. Number of reported measles cases from July to December 2023, WHO [1]



- En 2023 en Europe : > 30 000 cas dont 21 000 hospitalisations
- L'épidémie continue en 2024
- Attention aux cas importés : Roumanie ++
- Penser aux immunoglobulines polyvalentes chez les nourrissons > 6 mois non vaccinés

Agence Régionale de Santé Auvergne-Rhône-Alpes

Cette épidémie concerne une majorité d'enfants (22 sur 25 cas confirmés à ce jour) au sein de 4 collectivités (3 écoles et une crèche) sans lien retrouvé entre elles mais situées dans 4 communes voisines urbaines jouxtant la ville de Lyon. Le cas groupé en crèche concerne 7 enfants de moins de 11 à 13 mois non vaccinés dont 5 ont été hospitalisés.

Actualités épidémiques

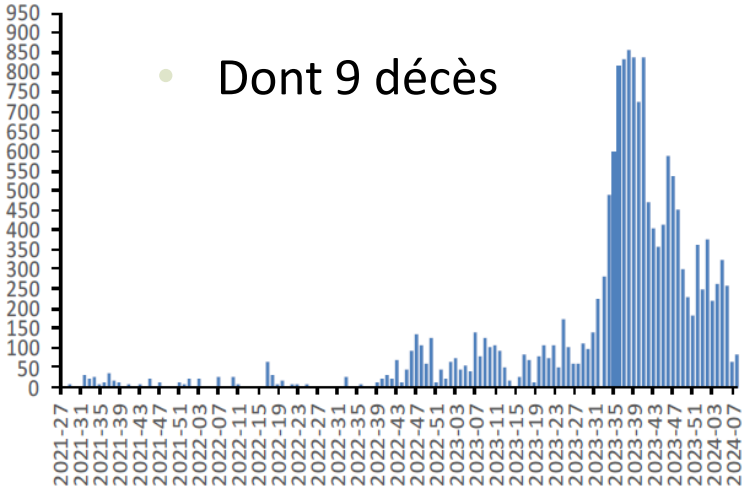
Santé publique France

Surveillance de la dengue

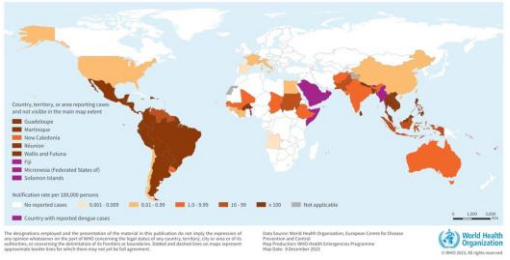
Guadeloupe, Martinique, St Martin, St Barthélemy

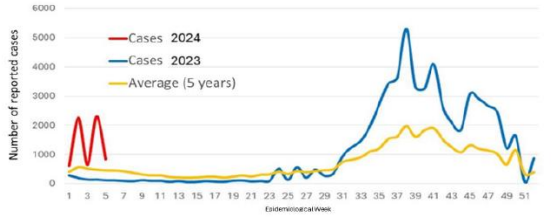
Point épidémio régional N°04 29 février 2024

Figure 1 : Nombre hebdomadaire de cas cliniquement évocateurs de dengue, Guadeloupe, semaines 2012-27 à 2024-08.
Source : Réseau des médecins Sentinelles.

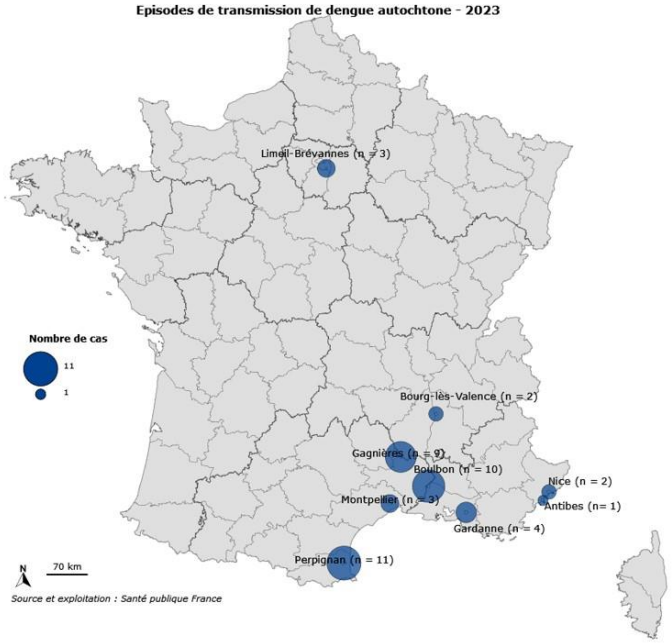


- Dont 9 décès





Source: Adapted from the Pan American Health Organization. PLISA Health Information Platform for the Americas. Dengue Indicators Portal. Washington, DC: PAHO; 2024 [cited 14 February 2024]. Available from: https://www3.paho.org/data/index.php/en/mnu-topics/indicadores-dengue-en.html



- Cette année : 9 foyers de dengue autochtones identifiés (45 cas)
- Principalement PACA et Occitanie, mais également en île de France !

Mycobactéries

Mycobactéries

Accuracy of upper respiratory tract samples to diagnose *Mycobacterium tuberculosis*: a systematic review and meta-analysis

Helen R Savage, Hannah M Rickman, Rachael M Burke, Maria Lisa Odland, Martina Savio, Beate Ringwald, Luis E Cuevas, Peter MacPherson

THE LANCET
Microbe

- Méta-analyse sur les performances diagnostiques des prélèvements respiratoires hauts par rapport aux expectorations/tubages gastriques dans la tuberculose pulmonaire
- 71 études inclues
- Examen direct, culture et PCR poolés
- Pas assez d'étude sur les écouvillons nasopharyngés (n=1)

Test	Sensibilité	Spécificité
Ecouvillon laryngé	58 [21-65] %	94 [88-97] %
Aspiration nasopharyngée	65 [52-76] %	98 [96-99] %
Ecouvillon buccal	57 [44-68] %	91 [81-96] %

- Rappel : sensibilité estimée crachat induit = 70 [64-75]% ~ équivalente au LBA

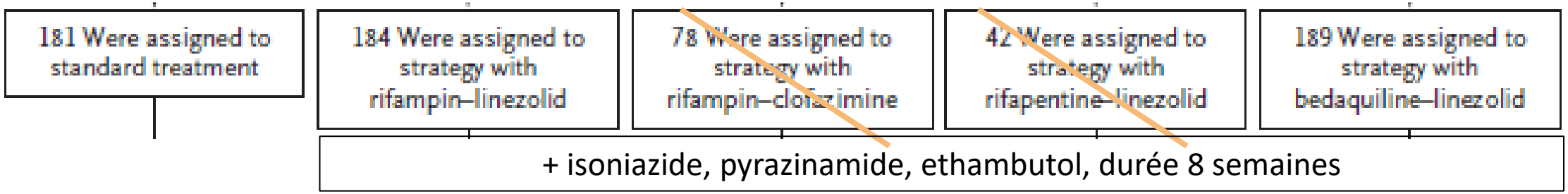
Mycobactéries

Treatment Strategy for Rifampin-Susceptible Tuberculosis

Nicholas I. Paton, M.D., Christopher Cousins, M.B., Ch.B., Celina Suresh, B.Sc., Erlina Burhan, M.D., Ka Lip Chew, F.R.C.P.A., Victoria B. Dalay, M.D., Qingshu Lu, Ph.D., Tutik Kusmiati, M.D., Vincent M. Balanag, M.D., Shu Ling Lee, B.Sc., Rovina Ruslami, Ph.D., Yogesh Pokharkar, M.Sc., Irawaty Djaharuddin, M.D., Jani J.R. Sugiri, M.D., Rholine S. Veto, M.D., Christine Sekaggya-Wiltshire, Ph.D., Anchalee Avihingsanon, M.D., Rohit Sarin, M.D., Padmasayee Papineni, F.R.C.P., Andrew J. Nunn, M.Sc., and Angela M. Crook, Ph.D., for the TRUNCATE-TB Trial Team*

The NEW ENGLAND JOURNAL of MEDICINE

- Essai de non-infériorité (12%) par rapport au traitement standard, 5 bras
- 600 patients inclus



- !!!! Prévu dans le protocole de prolonger le traitement ou retraiter dans les bras interventions
- CJP : décès ou tuberculose en cours de traitement/active à 96 semaines (1.84 an)

Traitement standard	Rifam-Liné	Bédaquiline-Liné
7/181 (3.9%)	21/184 (11.4%)	11/189 (5.8%)
	Inférieur	Non-inférieur

- Mais : 6.5% de switch au traitement standard et 17% ont eu un second traitement

Mycobactéries

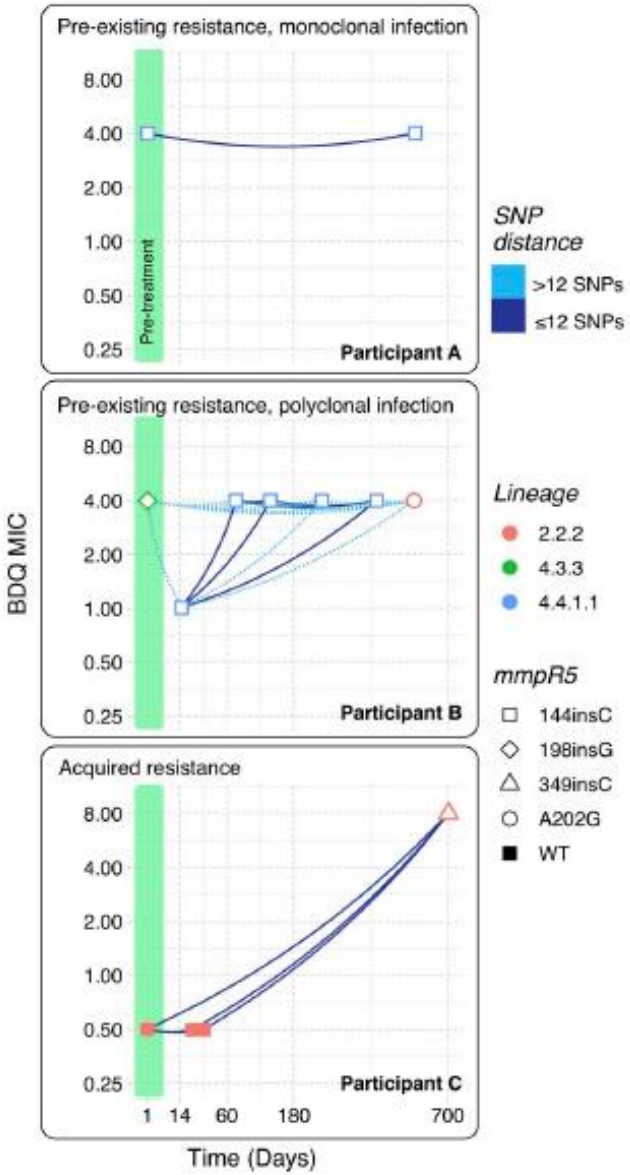
Genotype–Phenotype Characterization of Serial *Mycobacterium tuberculosis* Isolates in Bedaquiline-Resistant Tuberculosis

Tyler S. Brown,[1,2,a] Linrui Tang,[3,a] Shaheed Vally Omar,[4,5] Lavania Joseph,[4] Graeme Meintjes,[6] Gary Maartens,[6,7] Sean Wasserman,[6,8] N. Sarita Shah,[9] Maha R. Farhat,[10] Neel R. Gandhi,[9] Nazir Ismail,[4] James C. M. Brust,[11,a] and Barun Mathema[3,a]

Clinical Infectious Diseases

MAJOR ARTICLE

- Mesure des CMIs à la bédaquiline de souches provenant des 194 de l'étude PROBeX (patients naïfs à la bédaquiline avec tuberculose MDR ou XDR)
- Séquençage du génome total si CMI > 1 mg/L
- Résultats :
  - 147 patients inclus dont 24 (16%)ayant au moins 1 isolat résistant à la bédaquiline
  - 12/19 avec résistance préalable à la bédaquiline (5 inévaluables)
  - 9 paires de patients avec résistances génétiquement similaires
  - 8/24 avec infection polyclonale



Mycobactéries

Adjunctive Dexamethasone for Tuberculous Meningitis in HIV-Positive Adults

Joseph Donovan, Ph.D., Nguyen D. Bang, Ph.D., Darma Imran, M.D., Ho D.T. Nghia, Ph.D., Erlina Burhan, Ph.D., Dau T.T. Huong, M.Sc., Nguyen T.T. Hiep, M.D., Lam H.B. Ngoc, B.Sc., Dang V. Thanh, M.D., Nguyen T. Thanh, M.D., Anna L.S. Wardhani, B.Sc., Kartika Maharani, M.D., Cakra P. Gasmara, M.D., Nguyen H.H. Hanh, M.D., Pham K.N. Oanh, M.D., Riwanti Estiasari, Ph.D., Do D.A. Thu, B.Sc., Ardiana Kusumaningrum, M.D., Le T. Dung, M.D., Do C. Giang, Ph.D., Dang T.M. Ha, Ph.D., Nguyen H. Lan, M.D., Nguyen V.V. Chau, Ph.D., Nguyen T.M. Nguyet, B.Sc., Ronald B. Geskus, Ph.D., Nguyen T.T. Thuong, Ph.D., Evelyne Kestelyn, M.P.H., Raph L. Hamers, Ph.D., Nguyen H. Phu, Ph.D., and Guy E. Thwaites, F.R.C.P., for the ACT HIV Investigators*

The NEW ENGLAND JOURNAL of MEDICINE

- 520 patients VIH + neurotuberculose
- Randomisés en 6-8 semaines de Dexaméthasone (0.4mg/kg avec décroissance progressive) ou Placebo, + 12 mois d'antituberculeux
- Début des ARV 6 à 8 semaines après les anti-BK

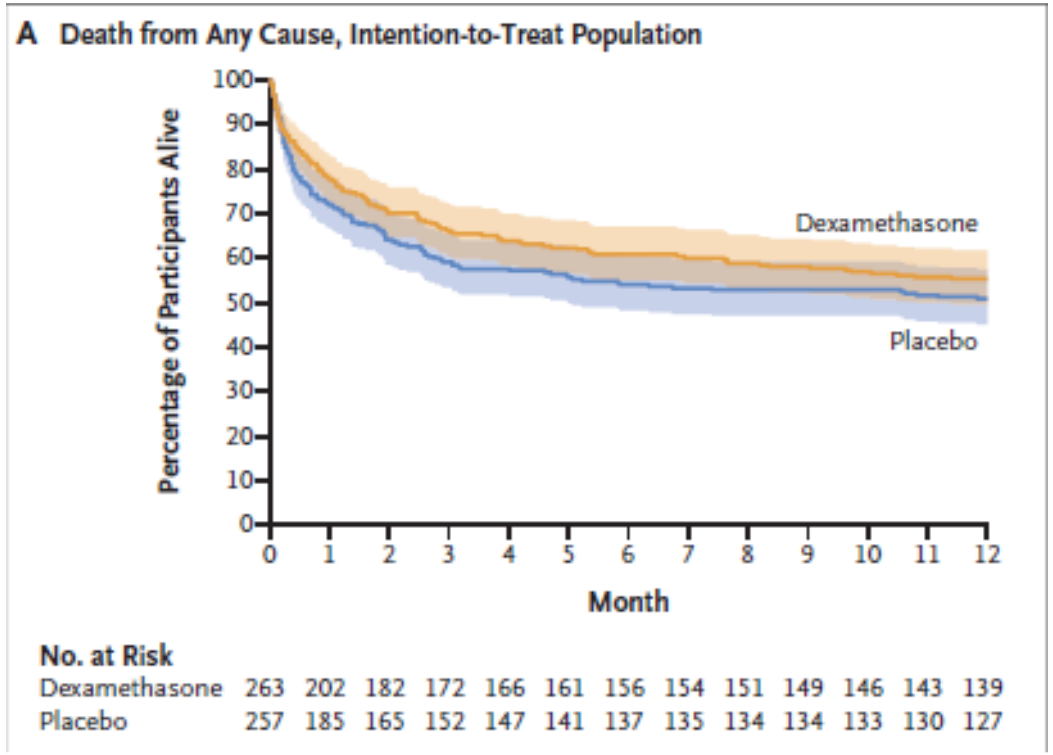


Table 1. Baseline Characteristics in the Intention-to-Treat Population.*

Characteristic	Total (N=520)	Dexamethasone (N=263)	Placebo (N=257)
CD4 cell count at enrollment — no./total no. (%)			
≤50 per cubic millimeter	251/484 (51.9)	126/244 (51.6)	125/240 (52.1)
51 to 100 per cubic millimeter	89/484 (18.4)	45/244 (18.4)	44/240 (18.3)
101 to 200 per cubic millimeter	71/484 (14.7)	36/244 (14.8)	35/240 (14.6)
>200 per cubic millimeter	73/484 (15.1)	37/244 (15.2)	36/240 (15.0)
ART status at enrollment — no. (%)			
No previous ART	255 (49.0)	133 (50.6)	122 (47.5)
ART for >3 mo	104 (20.0)	46 (17.5)	58 (22.6)
ART of undetermined duration††	106 (20.4)	58 (22.1)	48 (18.7)
Unknown status or missing data	55 (10.6)	26 (9.9)	29 (11.3)

Table 2. Death from Any Cause in Prespecified Subgroups in the Intention-to-Treat Population.*

Subgroup	Dexamethasone (N=263)	Placebo (N=257)	Hazard Ratio (95% CI)
	no. of deaths/no. of participants		
Overall	116/263	126/257	0.85 (0.66–1.10)†

Mycologie

Nouveaux antifongiques : rezafungin

Rezafungin versus caspofungin for treatment of candidaemia and invasive candidiasis (ReSTORE): a multicentre, double-blind, double-dummy, randomised phase 3 trial

George R Thompson III, Alex Soriano, Oliver A Cornely, Bart Jan Kullberg, Marin Kollef, Jose Vazquez, Patrick M Honore, Matteo Bassetti, John Pullman, Methee Chayakulkeeree, Ivan Poromanski, Cecilia Dignani, Anita F Das, Taylor Sandison, Peter G Pappas, on behalf of the ReSTORE trial investigators

THE LANCET

- Essai de non infériorité (20%) :
  - 222 patients avec candidémie ou candidose invasive
  - 2 à 4 injections hebdomadaires de Rezafungin vs caspofungine pour 2 à 4 semaines.

	Rezafungin group (n=93)	Caspofungin group (n=94)	Treatment difference (95% CI)
All-cause mortality at day 30 (US FDA primary outcome)			
Died	22 (24%)	20 (21%)	2·4 (−9·7 to 14·4)*
Known to have died	19 (20%)	17 (18%)	..
Unknown survival	3 (3%)	3 (3%)	..
All-cause mortality at day 30 by diagnosis			
Candidaemia only	18/64 (28%)	17/67 (25%)	2·8 (−12·5 to 18·0)*
Invasive candidiasis	4/29 (14%)	3/27 (11%)	2·7 (−16·7 to 21·7)*
Global response at day 14 as assessed by DRC (EMA primary outcome)			
Cure	55 (59%)	57 (61%)	−1·1 (−14·9 to 12·7)†
Failure	28 (30%)	29 (31%)	..
Indeterminate	10 (11%)	8 (9%)	..

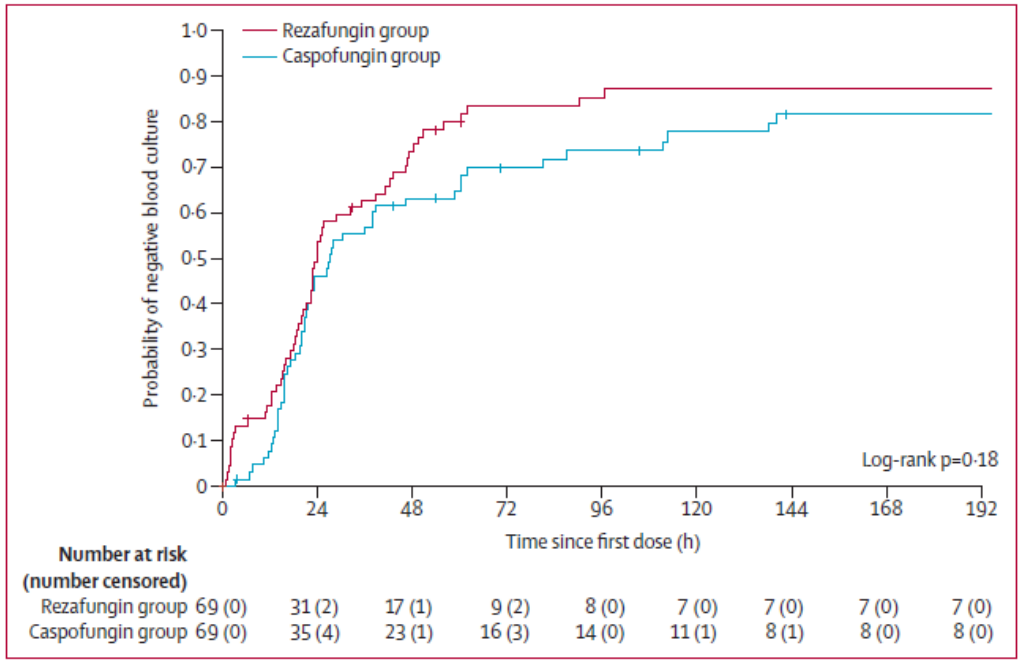


Figure 2: **Time to negative blood culture after treatment with rezafungin versus caspofungin in the modified intention-to-treat population**

Nouveaux antifongiques : rezafungin

Efficacy and safety of rezafungin and caspofungin in candidaemia and invasive candidiasis: pooled data from two prospective randomised controlled trials

George R Thompson III, Alex Soriano, Patrick M Honore, Matteo Bassetti, Oliver A Cornely, Marin Kollef, Bart Jan Kullberg, John Pullman, Maya Hites, Jesús Fortún, Juan P Horcajada, Anastasia Kotanidou, Anita F Das, Taylor Sandison, Jalal A Aram, Jose A Vazquez, Peter G Pappas

THE LANCET
Infectious Diseases

- ReSTORE (phase 3) + STRIVE (phase 2)
- 294 patients, non-infériorité 20% sur la mortalité J30

	Rezafungin (n=139)	Caspofungin (n=155)
Final diagnosis*		
Candidaemia only	100 (72%)	115 (74%)
Invasive candidiasis	39 (28%)	40 (26%)
Absolute neutrophil count at randomisation		
<500 cells per µL	7/135 (5%)	5/151 (3%)
≥500 cells per µL	128/135 (92%)	146/151 (94%)

- Mortalité J30 19% dans les deux groupes

Secondary efficacy endpoints			
Day 5 mycological response			
Eradication	102 (73%)	100 (65%)	..
Failure or indeterminate	37 (27%)	55 (35%)	..
Eradication rate*	..	..	10·0% (−0·3 to 20·4)

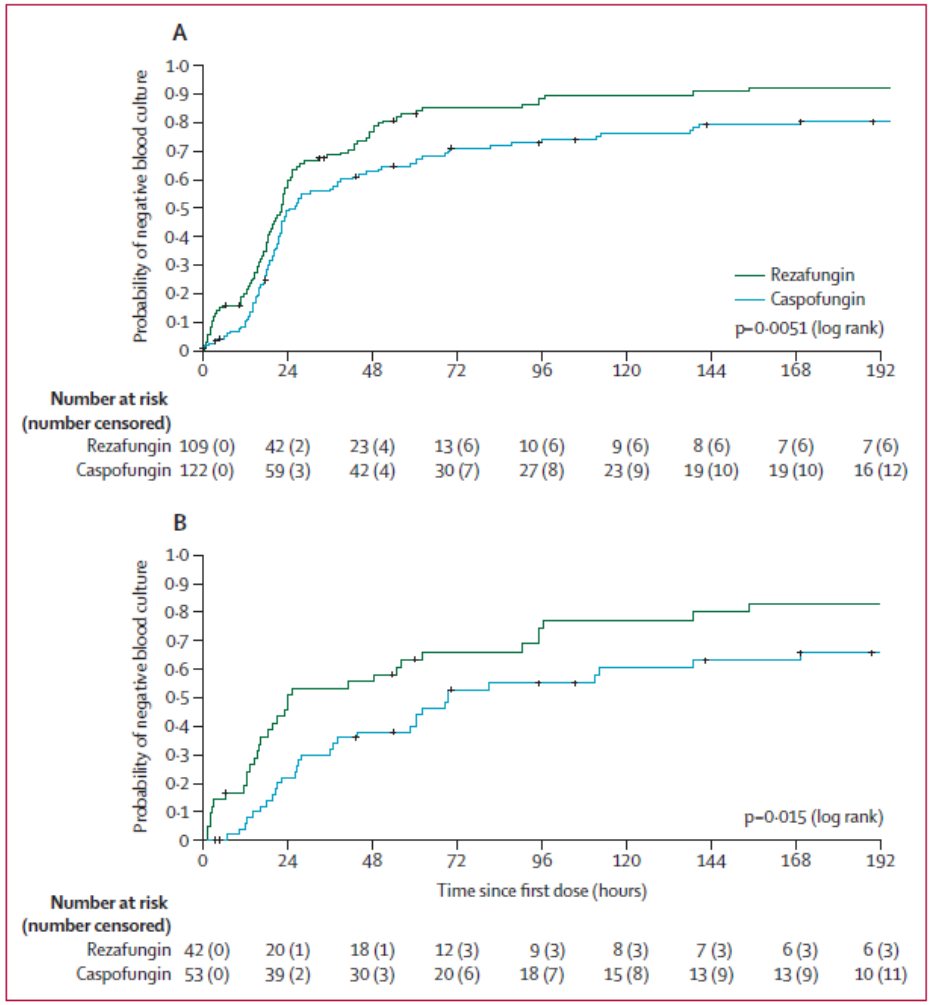


Figure 2: **Time to first negative blood culture in (A) patients with a positive blood culture at screening and (B) those with a positive blood culture proximal to randomisation (mITT population, patients with a positive culture at screening)**

Nouveaux antifongiques : fosmanogepix

Safety and Pharmacokinetics of Intravenous and Oral Fosmanogepix, a First-in-Class Antifungal Agent, in Healthy Volunteers

Michael R. Hodges,[a] Eric Ople,[a] Pamela Wedel,[a] Karen J. Shaw,[b] Abhijeet Jakate,[c] William G. Kramer,[d] Sjoerd van Marle,[e] Ewoud-Jan van Hoogdalem,[e] Margaret Tawadrous[c]

AMERICAN SOCIETY FOR MICROBIOLOGY | Antimicrobial Agents and Chemotherapy®

- Atteinte d'une protéine de transfert de la paroi → blocage synthèse de la paroi
- Efficacité théorique sur de nombreuses levures et champignons filamenteux
- 2 essais de phase 1 (IV et PO)

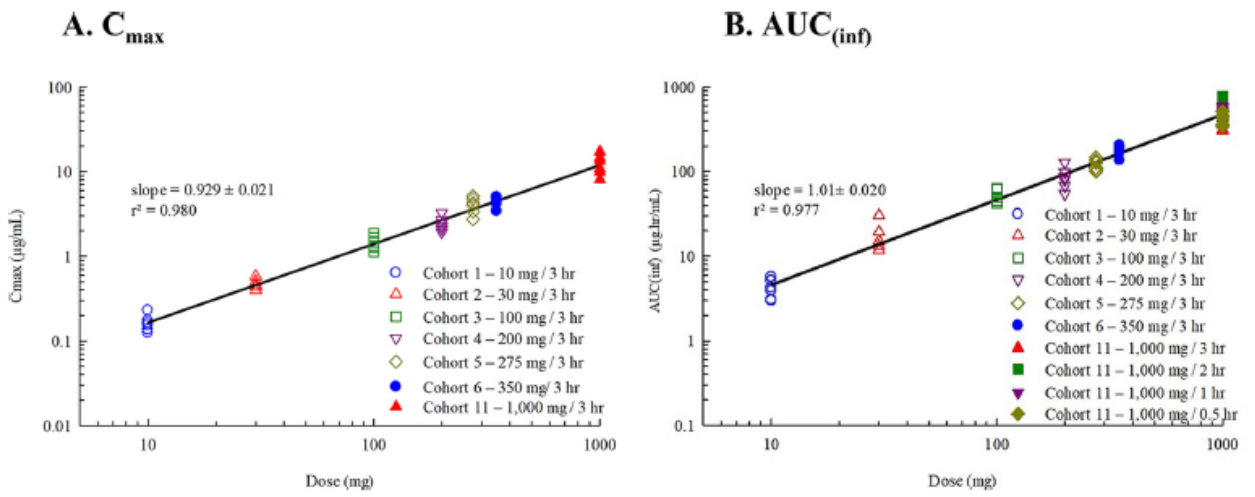


FIG 2 (A and B) Relationship of (A) C_{max} and (B) $AUC_{(\infty)}$ of MGX with dose after i.v. infusion of FMGX (SAD cohorts). Data are presented for study 1 cohorts 1 to 6 and 11a for C_{max} (A) and $AUC_{(\infty)}$ (B) of MGX for participants in the PK population. All doses were infused over 3 h (A) or 10 to 350 mg for 3 h and 1,000 mg over 0.5 to 3 h. $AUC_{(\infty)}$, area under the concentration-time curve from time zero to infinity; C_{max}, maximum plasma concentration; FMGX, fosmanogepix; IV, intravenous; MGX, manogepix; n, number of participants; PK, pharmacokinetics.

- Résultats :
  - Pharmacocinétique linéaire
  - Biodisponibilité ~ 100%
  - Pas d'atteinte de la dose maximale tolérée
  - Effets indésirables mineurs : nausées, céphalées, asthénie
  - Meilleure tolérance PO si administration après les repas

Nouveaux antifongiques : fosmanogepix

Clinical safety and efficacy of novel antifungal, fosmanogepix, for the treatment of candidaemia: results from a Phase 2 trial

Peter G. Pappas[1], Jose A. Vazquez[2], Ilana Oren[3]†, Galia Rahav[4,5], Mickael Aoun[6], Pierre Bulpa[7], Ronen Ben-Ami[5,8], Ricard Ferrer[9], Todd Mccarty[1], George R. Thompson III[10], Haran Schlamm[11], Paul A. Bien[12], Sara H. Barbat[11], Pamela Wedel[11], Iwona Oborska[11], Margaret Tawadrous[12]* and Michael R. Hodges[11]

Journal of Antimicrobial Chemotherapy

- Essai phase 2 : fosmanogepix 1000mgx2/j IV à J1, puis 600mg/j IV (relai PO 700mg/j possible à partir de J4) pendant 14 jours

Table 1. Demographics and baseline characteristics

Parameter	mITT *N*=20
ICU, *n* (%)	9 (45.0)
Baseline pathogen[a]	
C. glabrata	10 (50.0)
C. albicans	8 (40.0)
C. parapsilosis	3 (15.0)
C. dubliniensis	1 (5.0)

Table 2. Efficacy endpoints: treatment success and survival

	mITT *n/N* (%) (95%CI)
Response at EOST	
Success[a]	16/20 (80) (56.3–94.3)
Failure	4/20 (20) (5.7–43.7)
Reasons for failure at EOST	
Persistent *Candida* spp. in blood cultures[b]	3/20
Death[c]	1/20

- 3 patients avec échec : CMI bas (0.004 à 0.016) sans élévation en cours de traitement
- Tolérance : nausées, diarrhées (3+3 patients), pas d'arrêt
- 7 patients avec Clairance rénale < 60 mL/mn : PK (rudimentaire) similaire

Clinical Efficacy and Safety of a Novel Antifungal, Fosmanogepix, in Patients with Candidemia Caused by *Candida auris:* Results from a Phase 2 Trial

Jose A. Vazquez,[a] Peter G. Pappas,[b] Kenneth Boffard,[c] Fathima Paruk,[d] Paul A. Bien,[e] Margaret Tawadrous,[f] Eric Ople,[e] Pamela Wedel,[e] Iwona Oborska,[e] Michael R. Hodges[e]

American Society for Microbiology | Antimicrobial Agents and Chemotherapy®

- Essai à un bras du Fosmanogepix (même poso que précédemment) dans le traitement des candidémies à *Candida auris*
- 9 patients inclus
- Succès thérapeutique en fin de traitement 8/9 + 1 rechute
- Survie à J30 : 89% (8/9)

MIC (CLSI[b]/EUCAST[c]; µg/mL)				
Amphotericin	**Anidulafungin**	**Micafungin**	**Fluconazole**	**Manogepix**
1/0.5	0.5/1	0.25/0.25	>128/>128	0.015/0.015
1/0.5	0.5/0.06	0.12/0.03	>128/128	0.015/0.008
1/0.5	1/2	0.25/2	128/>128	0.015/0.03
1/0.5	1/0.25	0.25/0.25	>128/128	0.015/0.004
1/0.5	1/0.06	0.25/0.12	>128/>128	0.008/0.008
1/0.5	1/0.06	0.25/0.5	>128/>128	0.015/0.008
1/0.5	0.5/0.12	0.25/0.25	>128/>128	0.015/0.008
1/0.5	0.5/0.03	0.25/0.06	>128/>128	0.008/0.004
1/0.5	1/0.06	0.25/0.12	>128/>128	0.015/0.008

Nouveaux antifongiques : amphotéricine nanocrystal

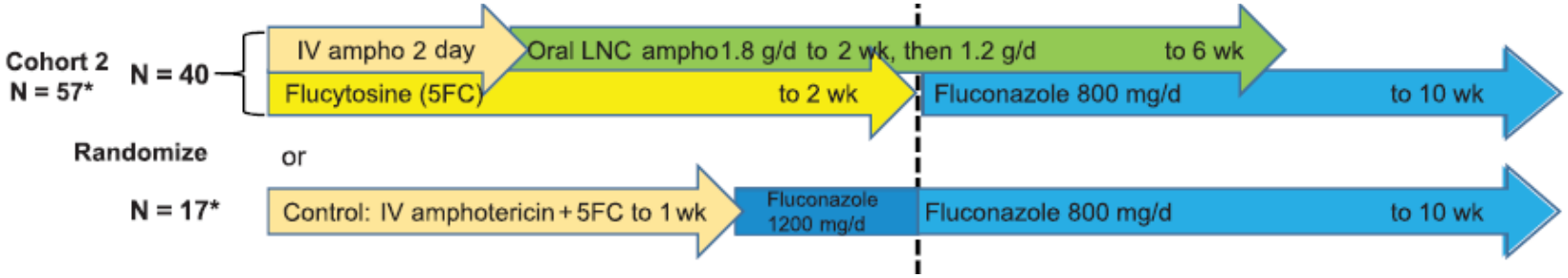
Oral Lipid Nanocrystal Amphotericin B for Cryptococcal Meningitis: A Randomized Clinical Trial

David R. Boulware,[1,a,©] Mucunguzi Atukunda,[2,a] Enock Kagimu,[2] Abdu K. Musubire,[2] Andrew Akampurira,[2] Lillian Tugume,[2] Kenneth Ssebambulidde,[2,3] John Kasibante,[2] Laura Nsangi,[2] Timothy Mugabi,[2] Jane Gakuru,[2] Sarah Kimuda,[2] Derrick Kasozi,[2] Suzan Namombwe,[2] Isaac Turyasingura,[2] Morris K. Rutakingirwa,[2] Edward Mpoza,[2] Enos Kigozi,[4] Conrad Muzoora,[4] Jayne Ellis,[2] Caleb P. Skipper,[1] Theresa Matkovits,[5] Peter R. Williamson,[3] Darlisha A. Williams,[1] Ann Fieberg,[6] Kathy H. Hullsiek,[6] Mahsa Abassi,[1] Biyue Dai,[6] and David B. Meya[1,2]

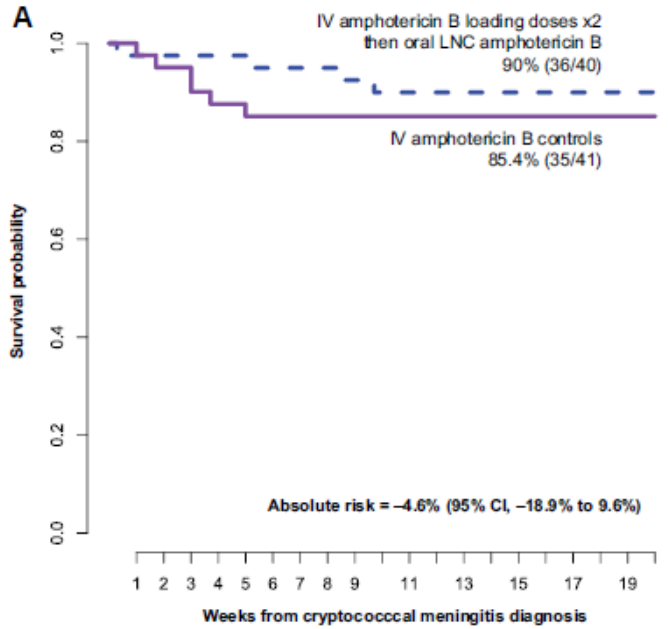
Clinical Infectious Diseases

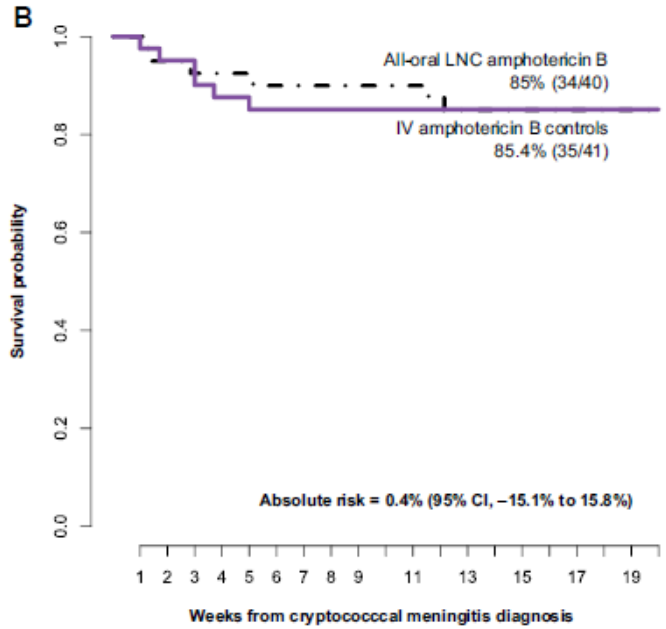
MAJOR ARTICLE

- Essai randomisé phase 2 : 2 groupes avec Amphotericin B nanocrystal orale (+/- L-AmB IV) versus L-AmB IV



- CJP : activité fongicide précoce = UFC de crypto dans les 18 jours
- Equivalente dans les trois groupes
- Clairance à J14 et mortalité à 18 semaines équivalente
- Moins d'effets indésirables dans les groupes nanocrystal (anémie 21% vs 44%, hypokaliémie 5% vs 17%)





Isavuconazole

Lower blood levels of isavuconazole in critically ill patients compared with other populations: possible need for therapeutic drug monitoring

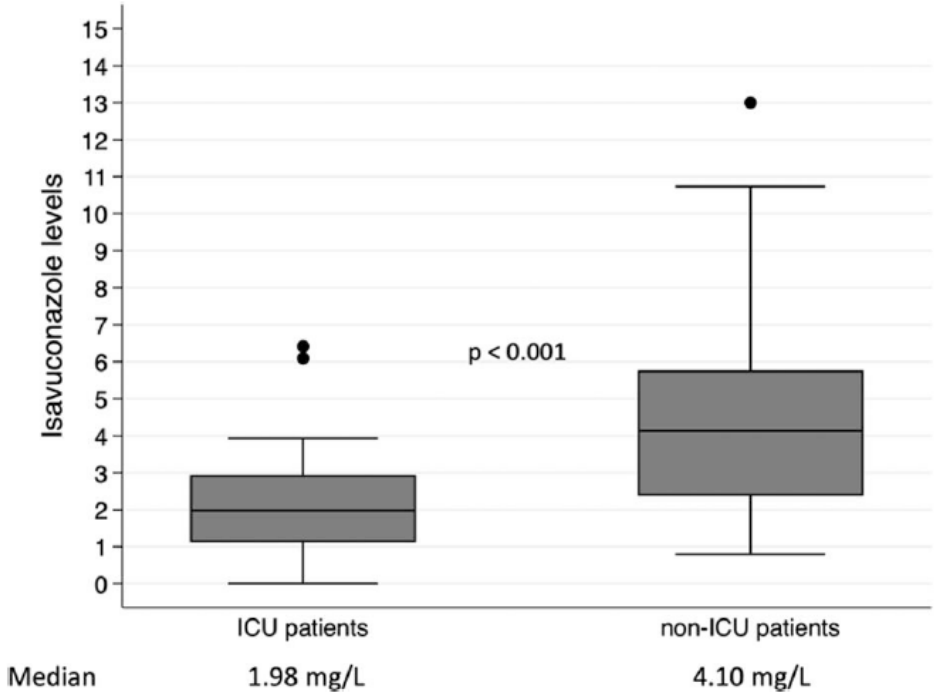
Malgorzata Mikulska[1,2]*†, Monica Melchio[1,2]†, Alessio Signori[3], Nadir Ullah[1], Franca Miletich[1,2], Chiara Sepulcri[1], Alessandro Limongelli[1,2], Daniele Roberto Giacobbe[1,2], Elisa Balletto[2], Chiara Russo[1,2], Laura Magnasco[2], Antonio Vena[1,2], Carmen Di Grazia[4], Anna Maria Raiola[4], Federica Portunato[2], Chiara Dentone[2], Denise Battaglini[5,6], Lorenzo Ball[5,6], Chiara Robba[5,6], Emanuele Angelucci[4], Iole Brunetti[5,6] and Matteo Bassetti[1,2]

Journal of Antimicrobial Chemotherapy

- Etude rétrospective, 72 patients, 188 dosages

Table 1. Demographic and clinical characteristics of patients included in the study

Characteristics	All patients (*n* = 72)	Non-ICU (*n* = 39)	ICU (*n* = 33)
Underlying disease, *n* (%)			
Haematological disorders[a]	34 (47.2)	31 (79.5)	3 (9.1)
Autologous HCT	2 (2.8)	2 (5.1)	0
Allogeneic HCT	20 (27.8)	19 (48.7)	1 (3)
SARS-CoV-2 infection[a]	18 (25)	0	18 (54.5)
CRRT during isavuconazole therapy,	10 (13.8)	0	10 (30.3)
ECMO during isavuconazole therapy,	3 (4.2)	0	3 (9.1)



- Facteurs associés à dosage bas: ICU, BMI>25, bilirubine>1.2mg/dL, non-hémato

- Sous-dosage <2 mg/L : 33% vs 8%
- Sous-dosage <1 mg/L : 12% vs 0%

Cryptocoque

Description of Cryptococcosis Following SARS-CoV-2 Infection: A Disease Survey Through the Mycosis Study Group Education and Research Consortium (MSG-19)

Jeremey Walker,[1] Todd McCarty,[1] Gerald McGwin,[1] Eloy E. Ordaya,[2] Paschalis Vergidis,[2] Luis Ostrosky-Zeichner,[3] Mehriban Mammadova,[3] Andrej Spec,[4] Adriana M. Rauseo,[4] John Perfect,[5] Julia Messina,[5] Gabriel Vilchez,[6] Rachel McMullen,[7] Carolynn T. Jones,[7,a] and Peter G. Pappas[1]; for the Mycoses Study Group Education and Research Consortium (MSGERC) Cryptococcal Registry Cohort*

Clinical Infectious Diseases

MAJOR ARTICLE

- Recueil de cas collaboratifs après appel à participation via sociétés savantes et twitter
- 69 cas, diagnostic 22 jours après COVID
- Critères diagnostiques : Ag crypto positif dans sang ou LCR, ou culture de n'importe quel site positive à Cryptocoque
- Mortalité globale 59% (72% chez l'immunocompétent)

Table 1. Patient Characteristics (N = 69)

Characteristic	No. (%)
Immunocompromising condition	
None	36 (52)
Solid organ transplant	15 (22)
Malignancy on chemotherapy	8 (12)
Other chronic immunosuppression	7 (10)
HIV	5 (7)
Other	2 (3)

Table 3. Location of Cryptococcal Disease Diagnosis, Host Factors, and Outcomes

			6-Month Outcome		
Location of Cryptococcal Disease Diagnosis	Immunocompromised (n = 33)	Immunocompetent (n = 36)	Alive (n = 18)	Dead (n = 40)	Unknown
Respiratory cultures only	3	13	7	9	0
Probable disseminated cryptococcosis	12	6	10	8	0
Proven disseminated cryptococcosis	9	13	1	19	2
CNS involvement	9	4	8	5	0
χ^2	$P = .0129$		$P = .0020$		

Pneumocystose

Pneumocystis jirovecii pneumonia in intensive care units: a multicenter study by ESGCIP and EFISG

Daniele Roberto Giacobbe[1,2*], Silvia Dettori[1,2], Vincenzo Di Pilato[3], Erika Asperges[4], Lorenzo Ball[3,5], Enora Berti[6], Ola Blennow[7,8], Bianca Bruzzone[9], Laure Calvet[10], Federico Capra Marzani[11], Antonio Casabella[12], Sofia Choudaly[13], Anais Dartevel[14], Gennaro De Pascale[15,16], Gabriele Di Meco[2], Melissa Fallon[17], Louis-Marie Galerneau[14], Miguel Gallego[18,19], Mauro Giacomini[20], Adolfo González Sáez[21,22], Luise Hänsel[23,24], Giancarlo Icardi[1,9], Philipp Koehler[23,24], Katrien Lagrou[25,26], Tobias Lahmer[27], P. Lewis White[17,28], Laura Magnasco[2], Anna Marchese[3,29], Cristina Marelli[2], Mercedes Marín-Arriaza[21,22,30], Ignacio Martin-Loeches[31,32], Armand Mekontso-Dessap[6,33,34], Malgorzata Mikulska[1,2], Alessandra Mularoni[35], Anna Nordlander[7,8], Julien Poissy[13,36], Giovanna Russelli[35], Alessio Signori[37], Carlo Tascini[38,39], Louis-Maxime Vaconsin[40], Joel Vargas[15], Antonio Vena[1,2], Joost Wauters[25,41], Paolo Pelosi[3,5], Jean-Francois Timsit[40,42] and Matteo Bassetti[1,2] on behalf of JIR-ICU investigators (collaborators)the Critically Ill Patients Study Group of the European Society of Clinical Microbiology and Infectious Diseases (ESGCIP), and the Fungal Infection Study Group of the European Society of Clinical Microbiology and Infectious Diseases (EFISG)

CRITICAL CARE

Méd. Intensive Réa. 32(4):357-370
DOI : 10.37051/mir-00185
Médecine Intensive Réanimation

MISE AU POINT / *UPDATE*

Pneumocystose en réanimation chez le patient VIH et non-VIH

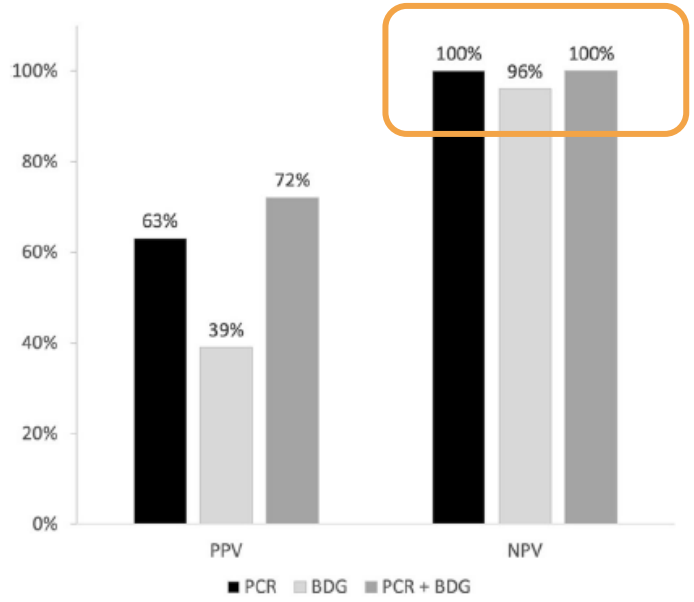
Pneumocystis pneumonia in critically ill patients

Alexis Maillard[1*] • Asma Mabrouki[1] • Virginie Lemiale[1]

- Etude rétrospective multinationale
- Critères diagnostiques :
  - Prouvé selon EORTC/MSG,
  - Probable/incertain/exclus : selon 2 personnes indépendantes
- Inclusion de 600 patients avec lésions en verre dépoli (96%) dont 19% de diagnostics retenus

Terrain	
VIH	9%
Hémopathie maligne	23%
Tumeur solide	16%
Maladies inflammatoires	16%
TOS	10%
COVID	13%

Population	PJP (TP/ total)	No PJP (TN/total)	Sensitivity % (95% CI)	Specificity % (95% CI)	PPV % (95% CI)	NPV % (95% CI)
Diagnosis of presumptive/proven PJP						
All respiratory *Pneumocystis* PCR**	111/111	373/439	100 (97–100)	85 (81–88)	63 (55–70)	100 (99–100)
Sputum *Pneumocystis* PCR***	10/10	19/28	100 (69–100)	68 (48–84)	53 (29–76)	100 (82–100)
Tracheal aspirate *Pneumocystis* PCR***	10/10	63/74	100 (69–100)	85 (75–92)	48 (26–70)	100 (94–100)
BALF *Pneumocystis* PCR***	95/95	299/351	100 (96–100)	85 (81–89)	65 (56–72)	100 (99–100)



- Corrélation Ct de la PCR et valeur du béta D glucane

PCR fongiques

Superior Accuracy of *Aspergillus* Plasma Cell-Free DNA Polymerase Chain Reaction Over Serum Galactomannan for the Diagnosis of Invasive Aspergillosis

Jordan Mah,[1,2] Veronica Nicholas,[1] Ralph Tayyar,[3] Angel Moreno,[1] Kanagavel Murugesan,[1] Indre Budvytiene,[2] and Niaz Banaei[1,2,3]

[1]Division of Pathology, Stanford University School of Medicine, Stanford, California, USA; [2]Clinical Microbiology Laboratory, Stanford Health Care, Stanford, California, USA; and [3]Division of Infectious Diseases and Geographic Medicine, Stanford University School of Medicine, Stanford, California, USA

Clinical Infectious Diseases

MAJOR ARTICLE

Clinical Impact of Polymerase Chain Reaction–Based *Aspergillus* and Azole Resistance Detection in Invasive Aspergillosis: A Prospective Multicenter Study

Sammy Huygens,[1,a] Albert Dunbar,[1,a] Jochem B. Buil,[2] Corné H. W. Klaassen,[3] Paul E. Verweij,[2] Karin van Dijk,[4] Nick de Jonge,[5] Jeroen J. W. M. Janssen,[5] Walter J. F. M. van der Velden,[6] Bart J. Biemond,[7] Aldert Bart,[8] Anke H. W. Bruns,[9] Pieter-Jan A. Haas,[10] Astrid M. P. Demandt,[11] Guy Oudhuis,[12] Peter von dem Borne,[13] Martha T. van der Beek,[14] Saskia K. Klein,[15,16] Peggy Godschalk,[17] Lambert F. R. Span,[16] Douwe F. Postma,[18] Greetje A. Kampinga,[19] Johan Maertens,[20,21] Katrien Lagrou,[21,22] Toine Mercier,[20,21] Ine Moors,[23] Jerina Boelens,[24] Dominik Selleslag,[25] Marijke Reynders,[26] Willemien Zandijk,[3] Jeanette K. Doorduijn,[27] Jan J. Cornelissen,[27] Alexander F. A. D. Schauwvlieghe,[25] and Bart J. A. Rijnders[1,a]

- Etude rétrospective 238 patients, IA probable/prouvée 19%

Table 1. Patient Characteristics

Characteristic	Overall (N = 238)
Mean age ± standard deviation, y	50.7 ± 21.4
Sex, no. (%)	
Male	132 (55.5)
Immunosuppression, no. (%)	214 (89.9)
Type of immunosuppression, no. (%)	
Hematopoietic stem cell transplant	65 (27.3)
Solid organ transplantation	43 (18.0)
Hematological malignancy	63 (26.5)
Solid organ malignancy	21 (8.8)
Other	22 (9.2)
None	24 (10.0)

	Sensibilité	Spécificité (no/poss)	VPP (prévalence 5-20%)	VPN (prévalence 5-20%)
PCR sérique	86 [73-94]	88	40-76	99-96
Ag galactomannane	63 [49-76]	94	32-69	98-91

- Pas d'impact d'une prophylaxie antifongique

- Etude prospective 323 patients ID avec TDM anormal, IA probable 36% (EORTC)
- 29% avec PCR pos chez Ag galactomanane neg
- Mortalité similaire ~ 15% à ceux sans IA
- Valeur du Ct plus basse chez patient avec IA (33 vs 36)

Journal of *Fungi*

An Overview of Systematic Reviews of Polymerase Chain Reaction (PCR) for the Diagnosis of Invasive Aspergillosis in Immunocompromised People: A Report of the Fungal PCR Initiative (FPCRI)—An ISHAM Working Group

Mario Cruciani [1,*], P. Lewis White [2], Rosemary A. Barnes [3], Juergen Loeffler [4], J. Peter Donnelly [5], Thomas R. Rogers [6], Werner J. Heinz [7], Adilia Warris [8], Charles Oliver Morton [9], Martina Lengerova [10], Lena Klingspor [11], Boualem Sendid [12] and Deborah E. A. Lockhart [13]

	Sensibilité	Spécificité
PCR sérique	57 à 84%	58 à 95%
PCR BAL	57 à 91%	92 à 97%

PCR mucorales

A Multiplex PCR and DNA-Sequencing Workflow on Serum for the Diagnosis and Species Identification for Invasive Aspergillosis and Mucormycosis

S. Imbert,[a,b] L. Portejoie,[a] E. Pfister,[a] B. Tauzin,[c] M. Revers,[a] J. Uthurriague,[a] M. Hernandez-Grande,[c] M.-E Lafon,[c] C. Jubert,[d] N. Issa,[e] P.-Y Dumas,[f] L. Delhaes[a,b]

Journal of Clinical Microbiology®

- PCR commerciale MycoGENIE aspergillus/mucorales : évaluation sur souches et sur serum de patients avec suspicion d'IFI
- 9 espèces d'*Aspergillus*, 8 genres de Mucorales (attention, + pour filamenteux de l'environnement (penicillium, paecilomyces)
- Serum de 744 patients dont 39 IA (14 CAPA) et 20 mucormycoses (critères EORTC/CAPA)

TABLE 4 Performances of the MycoGENIE *Aspergillus* spp./Mucorales spp. multiplex mucormycosis, or both infections[a]

PCR targets	Sensitivity % (95% IC)	Specificity % (95% IC)	PPV % (95% IC)	NPV % (95% IC)
Aspergillus target	64.1 (48.4 to 77.3)	98.6 (97.4 to 99.2)	71.4 (55 to 83.7)	98 (96.7 to 98.8)
Mucorales target	80 (58.4 to 91.9)	99.5 (98.6 to 99.8)	80 (58.4 to 91.9)	99.5 (98.6 to 99.8)
Combined target	67.3 (54.1 to 78.2)	97.8 (96.6 to 98.8)	72.6 (59.1 to 82.9)	97.4 (95.9 to 98.4)

- (sensibilité *Asp* 84% en excluant CAPA)

Performance of Mucorales spp. qPCR in bronchoalveolar lavage fluid for the diagnosis of pulmonary mucormycosis Get access

Xavier Brousse, Sébastien Imbert, Nahéma Issa, Edouard Forcade, Maxime Faure, Jeremy Chambord, Hanta Ramaroson, Hannah Kaminski, Pierre-Yves Dumas, Elodie Blanchard

Medical Mycology

- Etude rétrospective de 937 patients avec BAL
- 11 mucormycoses diagnostiquées (selon comité)
- MycoGENIE : Sensibilité 73%, spécificité 99%, VPP 38%, VPN 99.7%

Mucormycoses

Short intravenous amphotericin B followed by oral posaconazole using a simple, stratified treatment approach for diabetes or COVID-19-associated rhino-orbito-cerebral mucormycosis: a prospective cohort study

Abi Manesh [1], Emily Devasagayam [1], Kundakarla Bhanuprasad [1], Lalee Varghese [2], Regi Kurien [2], Lisa M. Cherian [2], Divya Dayanand [1], Mithun M. George [1], Selwyn S. Kumar [1], Rajiv Karthik [1], Harshad Vanjare [3], Jayanthi Peter [4], Joy S. Michael [5], Meera Thomas [6], Binu S. Mathew [7], Prasanna Samuel [8], Pimnara Peerawaranun [9], Mavuto Mukaka [9,10], Vedantam Rupa [2], George M. Varghese [1,*]

CMI CLINICAL MICROBIOLOGY AND INFECTION

- Etude prospective observationnelle monocentrique indienne sur les mucormycoses ORL
- Traitement intraveineux court (7-14 jours) si atteinte ORL stricte (+ méninges), versus long (15-28 jours) si atteinte cérébrale ou carotide interne + traitement chirurgical, puis relais par posaconazole
- Attention : traitement IV principalement par amphotéricin B désoxycholate (55%), exclusion des patients ID

	Traitement court (n=203)	Traitement long (n=45)
Durée médiane ttt IV	13 jours	22 jours
Diabète	95%	98%
COVID	74%	80%
Survie à 3 mois	95%	67%
Infection sur cathéter	20%	48%

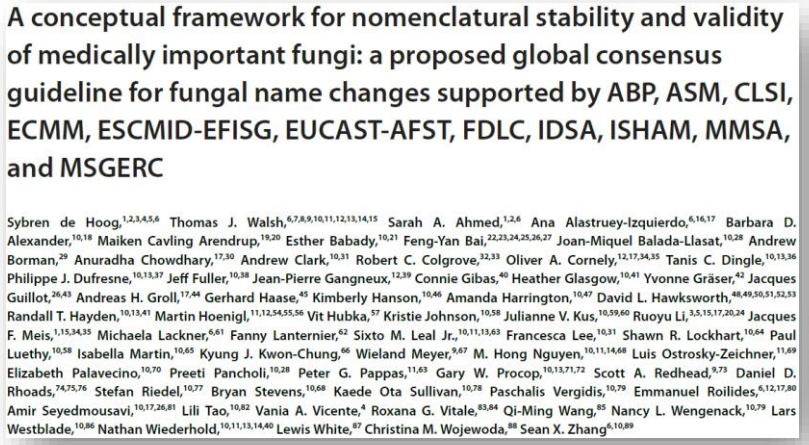
- Conclusion : efficacité du traitement IV court dans les formes sans atteinte cérébrale ou carotide interne

De nouvelles espèces ?

Pichia kudriavzevii
Nakaseomyces glabrata
Meyerozyma guilliermondii
Clavispora lusitaniae
Neocosmospora solani
Nannizzia gypsea
Et bien d’autres…

De nouvelles espèces ?

Nouveau nom	Ancien nom
Pichia kudriavzevii	*Candida krusei*
Nakaseomyces glabrata	*Candida glabrata*
Meyerozyma guilliermondii	*Candida guilliermondii*
Clavispora lusitaniae	*Candida lusitaniae*
Neocosmospora solani	*Fusarium solani*
Nannizzia gypsea	*Microsporum gypseum*
Et bien d'autres…	



A conceptual framework for nomenclatural stability and validity of medically important fungi: a proposed global consensus guideline for fungal name changes supported by ABP, ASM, CLSI, ECMM, ESCMID-EFISG, EUCAST-AFST, FDLC, IDSA, ISHAM, MMSA, and MSGERC

Sybren de Hoog,[1,2,3,4,5,6] Thomas J. Walsh,[6,7,8,9,10,11,12,13,14,15] Sarah A. Ahmed,[1,2,6] Ana Alastruey-Izquierdo,[6,16,17] Barbara D. Alexander,[10,18] Maiken Cavling Arendrup,[19,20] Esther Babady,[10,21] Feng-Yan Bai,[22,23,24,25,26,27] Joan-Miquel Balada-Llasat,[10,28] Andrew Borman,[29] Anuradha Chowdhary,[17,30] Andrew Clark,[10,31] Robert C. Colgrove,[32,33] Oliver A. Cornely,[12,17,34,35] Tanis C. Dingle,[10,13,36] Philippe J. Dufresne,[10,13,37] Jeff Fuller,[10,38] Jean-Pierre Gangneux,[12,39] Connie Gibas,[40] Heather Glasgow,[10,41] Yvonne Gräser,[42] Jacques Guillot,[26,43] Andreas H. Groll,[17,44] Gerhard Haase,[45] Kimberly Hanson,[10,46] Amanda Harrington,[10,47] David L. Hawksworth,[48,49,50,51,52,53] Randall T. Hayden,[10,13,41] Martin Hoenigl,[11,12,54,55,56] Vit Hubka,[57] Kristie Johnson,[10,58] Julianne V. Kus,[10,59,60] Ruoyu Li,[3,5,15,17,20,24] Jacques F. Meis,[1,15,34,35] Michaela Lackner,[6,61] Fanny Lanternier,[62] Sixto M. Leal Jr.,[10,11,13,63] Francesca Lee,[10,31] Shawn R. Lockhart,[10,64] Paul Luethy,[10,58] Isabella Martin,[10,65] Kyung J. Kwon-Chung,[66] Wieland Meyer,[9,67] M. Hong Nguyen,[10,11,14,68] Luis Ostrosky-Zeichner,[11,69] Elizabeth Palavecino,[10,70] Preeti Pancholi,[10,28] Peter G. Pappas,[11,63] Gary W. Procop,[10,13,71,72] Scott A. Redhead,[9,73] Daniel D. Rhoads,[74,75,76] Stefan Riedel,[10,77] Bryan Stevens,[10,68] Kaede Ota Sullivan,[10,78] Paschalis Vergidis,[10,79] Emmanuel Roilides,[6,12,17,80] Amir Seyedmousavi,[10,17,26,81] Lili Tao,[10,82] Vania A. Vicente,[4] Roxana G. Vitale,[83,84] Qi-Ming Wang,[85] Nancy L. Wengenack,[10,79] Lars Westblade,[10,86] Nathan Wiederhold,[10,11,13,14,40] Lewis White,[87] Christina M. Wojewoda,[88] Sean X. Zhang[6,10,89]

Journal of Clinical Microbiology

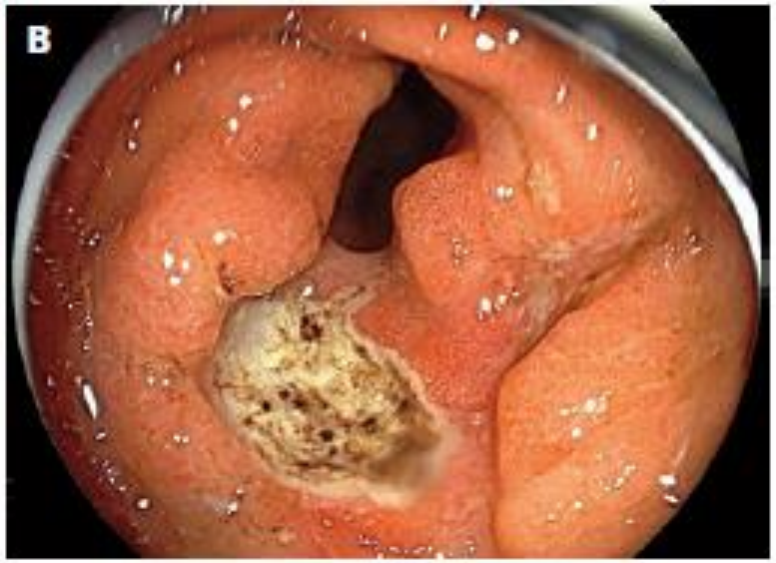
Fungal Nomenclature: Managing Change is the Name of the Game

Sarah E. Kidd,[1,2] Alireza Abdolrasouli,[3,4] and Ferry Hagen[5,6,7]

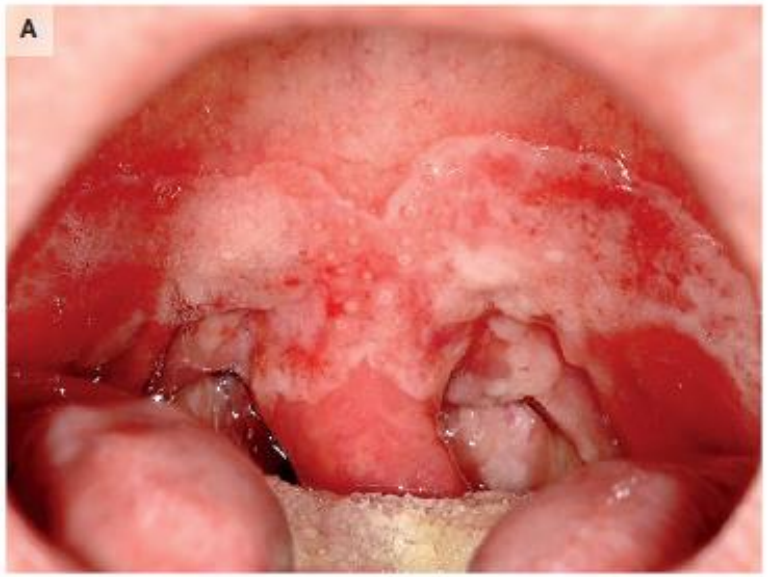
Open Forum Infectious Diseases

Petit quizz…

Votre diagnostic ?



- Quizz 1 : Homme de 32 ans, douleur gastrique et perte de poids depuis 15 jours. Examen clinique normal excepté douleur épigastrique. FOGD ci-dessus.



- Quizz 2 : Homme de 40 ans, odynophagie depuis 1 mois. Lésion isolée de l'oropharynx.

IMAGES IN CLINICAL MEDICINE

Stephanie V. Sherman, M.D., *Editor*

Gastric Syphilis

IMAGES IN CLINICAL MEDICINE

Stephanie V. Sherman, M.D., *Editor*

Syphilitic Pharyngitis

Syphilis

SURVEILLANCE REPORT

Syphilis

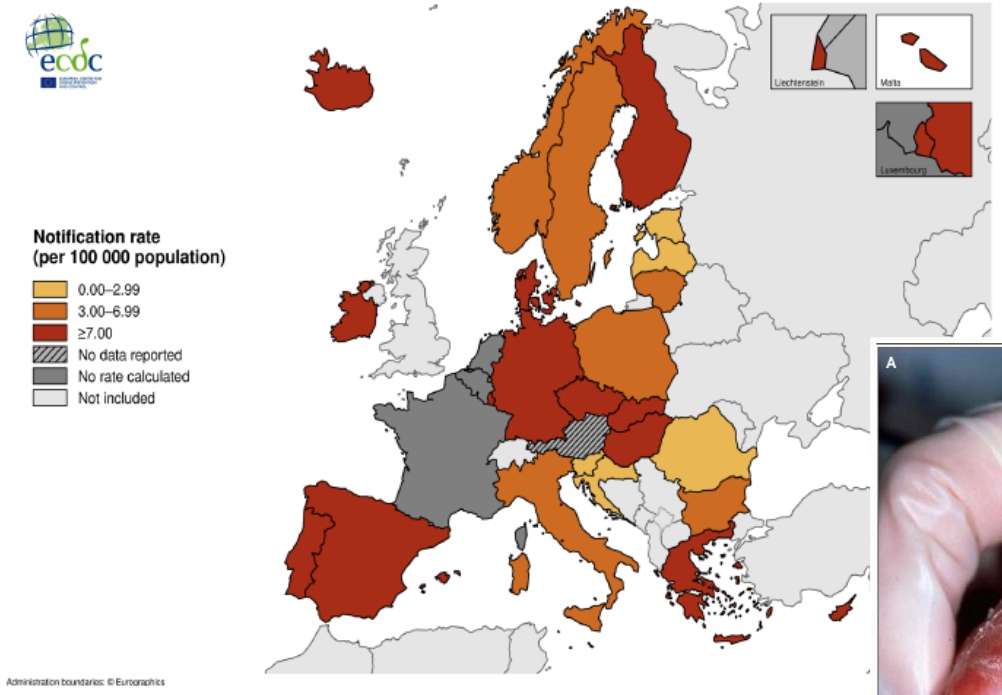
Annual Epidemiological Report for 2022

BEH Bulletin épidémiologique hebdomadaire — Santé publique France

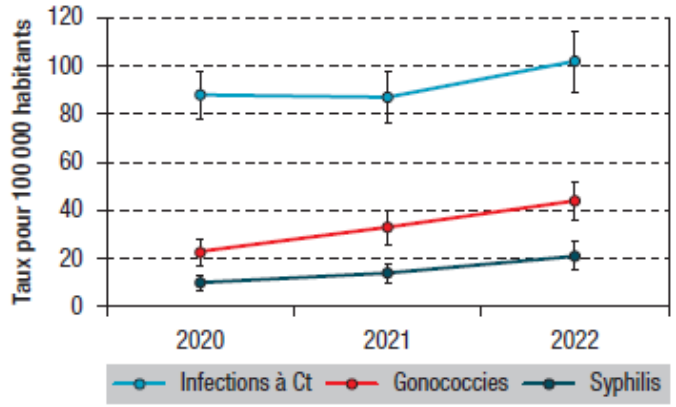
N° 24-25 | 12 décembre 2023

VIH et autres infections sexuellement transmissibles : enjeux de la surveillance et de la prévention

Figure 1. **Confirmed syphilis cases per 100 000 population by country, EU/EEA, 2022**



Evolution des taux d'incidence des cas d'IST bactériennes vus en consultation de médecine générale en France métropolitaine, 2020-2022



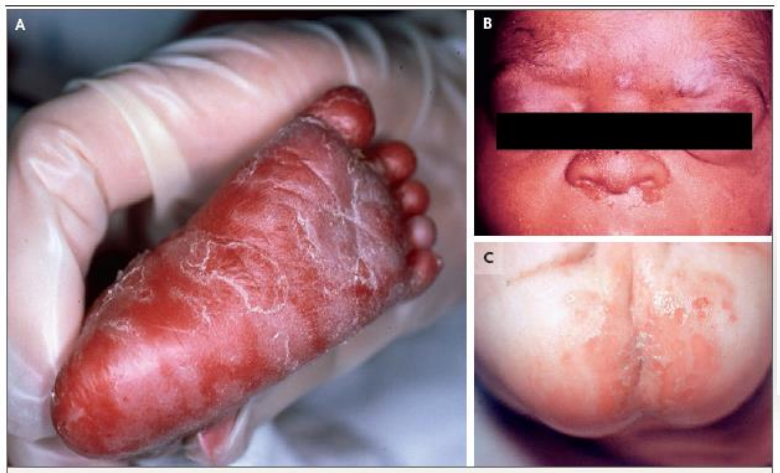


Figure 5. **Clinical Manifestations of Congenital Syphilis.**
Panel A shows neonatal plantar rash, Panel B shows snuffles, and Panel C shows erosive lesions involving the buttocks.

Syphilis Complicating Pregnancy and Congenital Syphilis

Irene A. Stafford, M.D., Kimberly A. Workowski, M.D., and Laura H. Bachmann, M.D., M.P.H.

The NEW ENGLAND JOURNAL of MEDICINE

Virologie

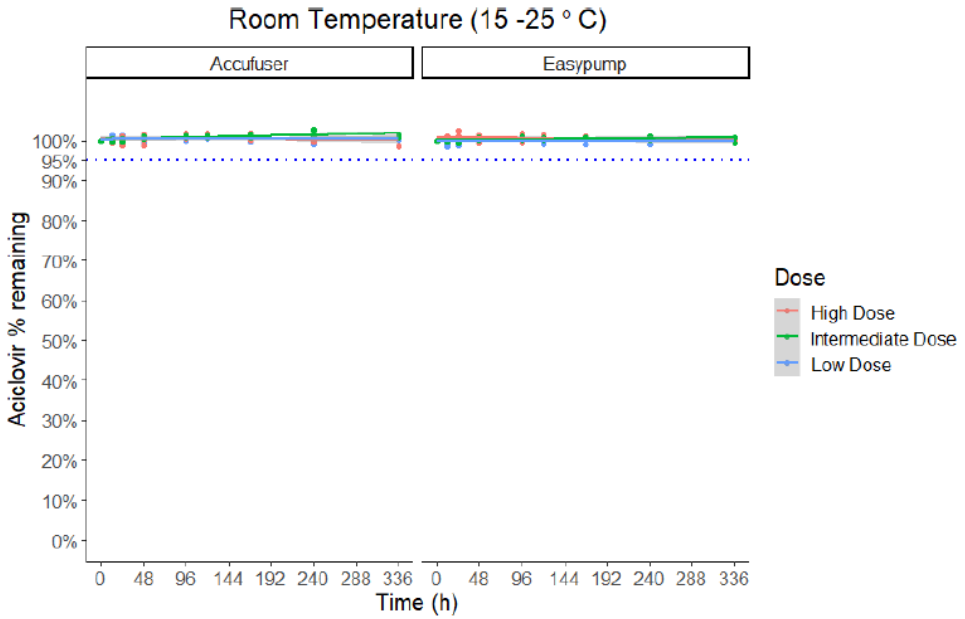
HSV

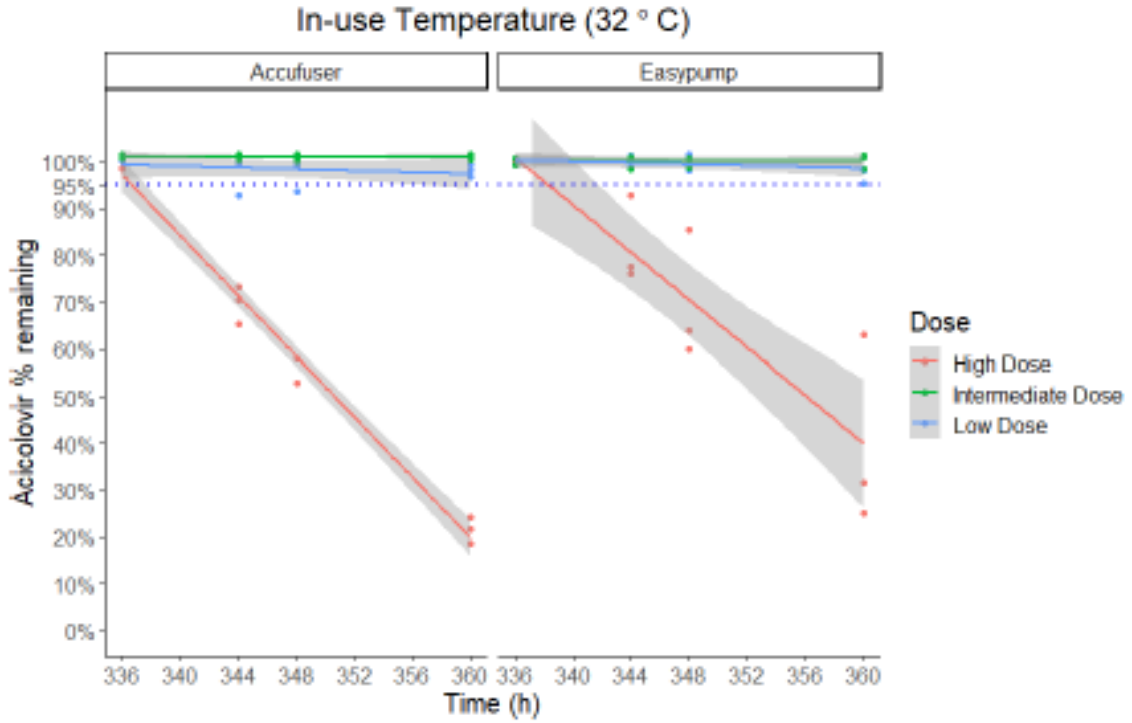
Evaluation of the stability of aciclovir in elastomeric infusion devices used for outpatient parenteral antimicrobial therapy

Fekade Bruck Sime ,[1] Steven Wallis,[1] Conor Jamieson,[2] Tim Hills,[3] Mark Gilchrist,[4] Mark Santillo,[5,6] R Andrew Seaton,[7] Felicity Drummond,[8] Jason Roberts,[1,9,10,11] on behalf of the BSAC OPAT Drug Stability Testing Programme

EUROPEAN JOURNAL OF HOSPITAL PHARMACY

- Aciclovir : utilisé en continu en OPAT en Australie
- Etude PK : bonne atteinte des objectifs PK/PD (T > CMI > 50%), Abdalla *et al*., AAC 2020)





- Stabilité de l'aciclovir jusqu'à 2400mg/240mL pendant 24h à 32°C dans des pompes élastométriques

CMV

Letermovir vs Valganciclovir for Prophylaxis of Cytomegalovirus in High-Risk Kidney Transplant Recipients
A Randomized Clinical Trial

Ajit P. Limaye, MD; Klemens Budde, MD; Atul Humar, MD, MSc; Flavio Vincenti, MD; Dirk R. J. Kuypers, MD, PhD; Robert P. Carroll, BM, BCh, DM; Nicole Stauffer, BS; Yoshihiko Murata, MD, PhD; Julie M. Strizki, PhD; Valerie L. Teal, MS; Christopher L. Gilbert, BS; Barbara A. Haber, MD

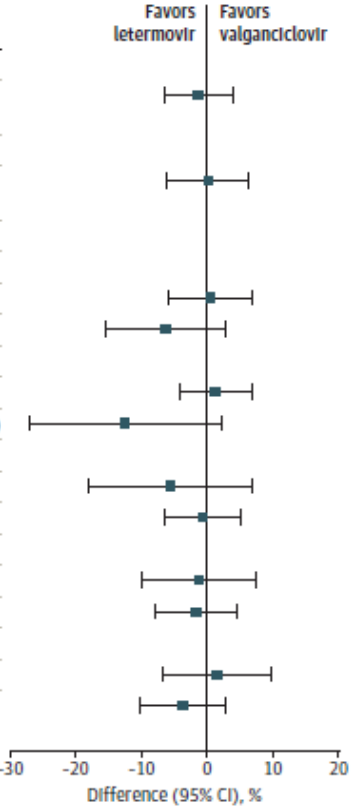
JAMA® The Journal of the American Medical Association

- Essai randomisé phase 3, non-infériorité 10%
- 601 transplantés rénaux séronégatifs recevant greffon CMV+
- SOC (valganciclovir) vs letermovir PO pour 200 jours
- CJP : maladie à CMV à 52 semaines

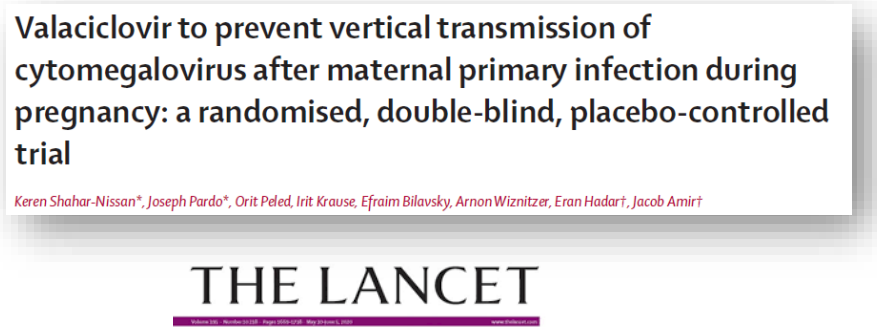
	Letermovir	Valganciclovir
Maladie à CMV (52s)	0%	12%
Leucopénie	26%	64%
Arrêt pour intolérance	3%	9%

Figure 2. Primary Outcome of Cytomegalovirus (CMV) Disease With Letermovir vs Valganciclovir Prophylaxis Through Week 52 in the Full Analysis Set

	No./total No. (%)		Difference (95% CI), %[b]
	Letermovir[a]	Valganciclovir	
Primary outcome			
CMV disease[c]	30/289 (10.4)	35/297 (11.8)	-1.4 (-6.5 to 3.8) (noninferior)
Sensitivity analysis			
Investigator-reported CMV disease[d]	50/289 (17.3)	51/297 (17.2)	0.1 (-6.1 to 6.3)
Subgroup analysis			
Sex			
Men	25/210 (11.9)	24/209 (11.5)	0.5 (-5.8 to 6.8)
Women	5/79 (6.3)	11/88 (12.5)	-6.3 (-15.5 to 2.9)
Age, y			
<65	26/242 (10.7)	23/242 (9.5)	1.2 (-4.2 to 6.7)
≥65	4/47 (8.5)	12/55 (21.8)	-12.5 (-27.0 to 2.1)
Race[e]			
Non-White	2/37 (5.4)	6/53 (11.3)	-5.7 (-18.1 to 6.7)
White	28/250 (11.2)	29/243 (11.9)	-0.7 (-6.4 to 5.0)
Region			
US	15/118 (12.7)	16/116 (13.8)	-1.3 (-10.0 to 7.5)
Non-US	15/171 (8.8)	19/181 (10.5)	-1.7 (-8.0 to 4.6)
Lymphocyte-depleting Induction Immunosuppression			
Use	18/131 (13.7)	17/138 (12.3)	1.4 (-6.7 to 9.6)
Nonuse	12/158 (7.6)	18/159 (11.3)	-3.7 (-10.3 to 2.8)



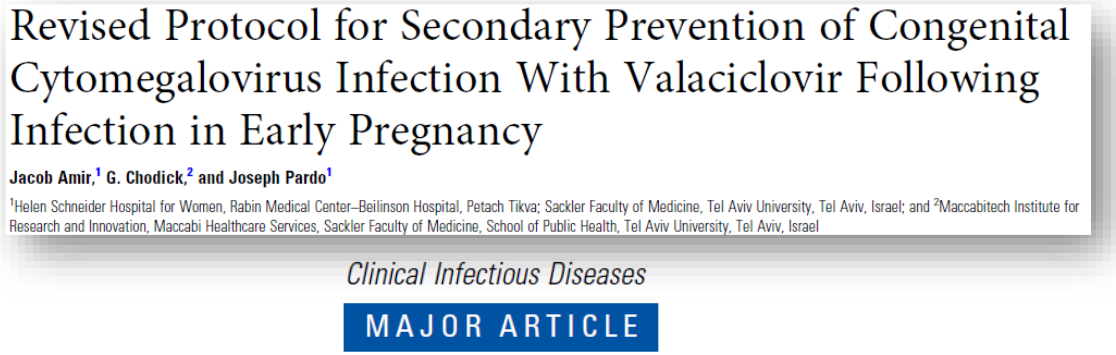
CMV


Valaciclovir to prevent vertical transmission of cytomegalovirus after maternal primary infection during pregnancy: a randomised, double-blind, placebo-controlled trial

Keren Shahar-Nissan*, Joseph Pardo*, Orit Peled, Irit Krause, Efraim Bilavsky, Arnon Wiznitzer, Eran Hadar†, Jacob Amir†

THE LANCET

- Essai randomisé (année 2020)
- 90 patientes randomisées placebo vs valaciclovir 7j
- Amniocentèse + à CMV chez 11% (VCV) vs 48% (placebo) (p=0.02)


Revised Protocol for Secondary Prevention of Congenital Cytomegalovirus Infection With Valaciclovir Following Infection in Early Pregnancy

Jacob Amir,[1] G. Chodick,[2] and Joseph Pardo[1]

[1]Helen Schneider Hospital for Women, Rabin Medical Center–Beilinson Hospital, Petach Tikva; Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel; and [2]Maccabitech Institute for Research and Innovation, Maccabi Healthcare Services, Sackler Faculty of Medicine, School of Public Health, Tel Aviv University, Tel Aviv, Israel

Clinical Infectious Diseases

MAJOR ARTICLE

- Essai à 1 bras incluant 178 femmes enceinte premier trimestre avec primo-infection CMV
- Valaciclovir 7j dans les 9 semaines suivant la date du contage estimé
- Amniocentèse + à CMV chez 7.9%
- Versus 11/23 (30%) dans le groupe placebo historique
- **OR=0.15 [0.05-0.45]**

COVID - plasma

Outpatient convalescent plasma therapy for high-risk patients with early COVID-19: a randomized placebo-controlled trial

Arvind Gharbharan [1,**], Carlijn Jordans [1], Lisa Zwaginga [2], Grigorios Papageorgiou [3], Nan van Geloven [4], Peter van Wijngaarden [5], Jan den Hollander [6], Faiz Karim [7], Elena van Leeuwen-Segarceanu [8], Robert Soetekouw [9], Jolanda Lammers [10], Douwe Postma [11], Linda Kampschreur [12], Geert Groeneveld [13], Francis Swaneveld [14], C. Ellen van der Schoot [15], Hannelore Götz [16,17], Bart Haagmans [18], Marion Koopmans [18], Susanne Bogers [18], Corine Geurtsvankessel [18], Jaap Jan Zwaginga [2], Casper Rokx [1], Bart Rijnders [1,*], on behalf of the CoV-Early study group

CMI CLINICAL MICROBIOLOGY AND INFECTION

- 421 patients avec COVID ~ 5 jours
- ≥ 1 FDR de COVID sévère
- Saturation médiane en AA 97%
- Seulement 3% d'ID sévère / 3% de vaccinés

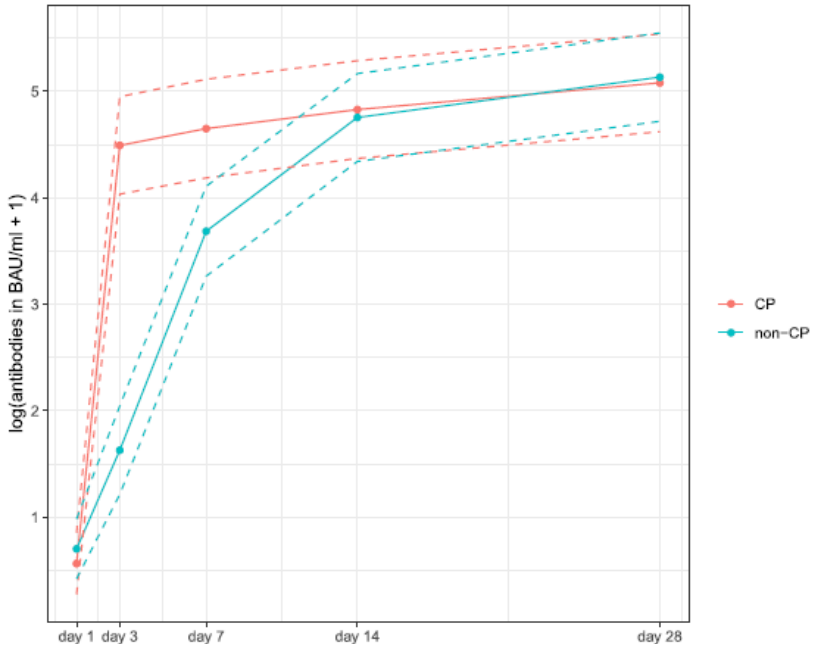


Table 2
Distribution of the outcome of the patients in the 28 days after inclusion across the 5-point disease severity scale

Worst disease severity score	Total ($n = 416$)	CP ($n = 207$)	Non-CP ($n = 209$)
Recovered, n (%)[a]	112 (26.9%)	59 (28.5%)	53 (25.4%)
Continued symptoms, n (%)[b]	274 (65.9%)	137 (66.2%)	137 (65.6%)
Admitted to hospital but no invasive ventilation, n (%)	27 (6.5%)	10 (4.8%)	17 (8.1%)
Admitted to hospital and invasive ventilation, n (%)	1 (0.2%)	0 (0%)	1 (0.5%)
Death, n (%)	2 (0.5%)	1 (0.5%)	1 (0.5%)

- Outcome 5 points similaire

COVID - plasma

COVID-19 Convalescent Plasma for the Treatment of Immunocompromised Patients: A Systematic Review and Meta-analysis

Jonathon W. Senefeld, PhD; Massimo Franchini, MD; Carlo Mengoli, MD; Mario Cruciani, MD; Matteo Zani, MD; Ellen K. Gorman, BS; Daniele Focosi, MD; Arturo Casadevall, MD, PhD; Michael J. Joyner, MD

JAMA Network Open

Guidance on the Use of Convalescent Plasma to Treat Immunocompromised Patients With Coronavirus Disease 2019

Evan M. Bloch,[1] Daniele Focosi,[2] Shmuel Shoham,[3] Jonathon Senefeld,[4] Aaron A. R. Tobian,[1] Lindsey R. Baden,[5] Pierre Tiberghien,[6] David J. Sullivan,[7] Claudia Cohn,[8] Veronica Dioverti,[3] Jeffrey P. Henderson,[9] Cynthia So-Osman,[10,11] Justin E. Juskewitch,[12] Raymund R. Razonable,[13] Massimo Franchini,[14] Ruchika Goel,[15] Brenda J. Grossman,[16] Arturo Casadevall,[7] Michael J. Joyner,[4] Robin K. Avery,[3] Liise-anne Pirofski,[17] and Kelly A. Gebo[3]

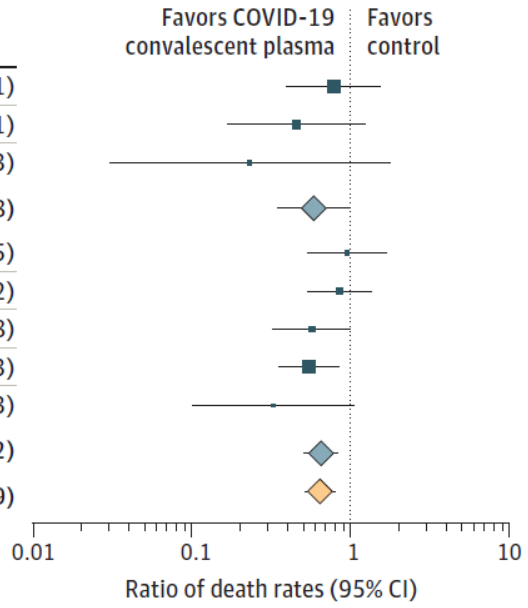
Clinical Infectious Diseases

VIEWPOINTS

- Systematic review : intérêt du plasma chez les immunodéprimés (hémato, transplantés, DIP, auto-immunité)

Figure 2. Forest Plot of Mortality Among Randomized Clinical Trials and Matched Cohort Studies

Source	Deaths/patients (%) CCP group	Usual care group	RR (95% CI)
Denkinger et al,[30] 2022	12/68 (18)	15/65 (23)	0.77 (0.39-1.51)
Lacombe et al,[31] 2022	4/22 (18)	11/27 (41)	0.45 (0.17-1.21)
Bar et al,[29] 2021	1/15 (7)	5/17 (29)	0.23 (0.03-1.73)
RCT total	17/105 (16)	31/109 (28)	0.58 (0.34-0.98)
Cristell et al,[33] 2021	13/58 (22)	28/116 (24)	0.93 (0.52-1.65)
Lanza et al,[36] 2022	19/79 (24)	46/159 (29)	0.83 (0.52-1.32)
Hueso et al,[35] 2022	13/61 (21)	29/76 (38)	0.56 (0.32-0.98)
Thompson et al,[34] 2021	19/143 (13)	204/823 (25)	0.54 (0.35-0.83)
Biernat et al,[32] 2021	3/23 (13)	9/22 (41)	0.32 (0.10-1.03)
MCT total	67/364 (18)	316/1196 (26)	0.64 (0.50-0.82)
Overall	84/469 (18)	347/1305 (27)	0.63 (0.50-0.79)



- Indications du plasma :
  - COVID aigü chez l'immunodéprimé surtout en l'absence de traitement antiviral ou Ac monoclonaux
  - COVID persistant, avec défaut de clairance virale et impact clinique
- Dose : 2 unités?
- Timing : inconnu
- Durée : à adapter à l'outcome (et notamment charge virale), envisager nouvelle perfusion à J7?
- Association : plutôt oui, remdesivir ?

VRS

CORRESPONDENCE

Nirsevimab for Prevention of RSV in Term and Late-Preterm Infants

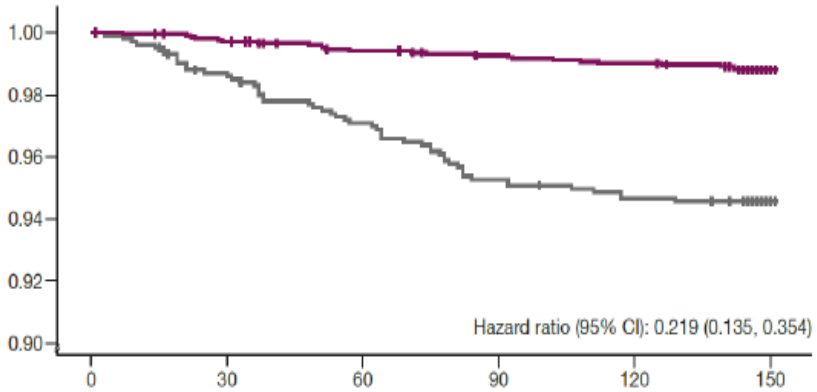
William J. Muller, M.D.

The NEW ENGLAND JOURNAL of MEDICINE

Nirsevimab for Prevention of RSV in Healthy Late-Preterm and Term Infants

Laura L. Hammitt, M.D., Ron Dagan, M.D., Yuan Yuan, Ph.D., Manuel Baca Cots, M.D., Miroslava Bosheva, M.D., Shabir A. Madhi, Ph.D., William J. Muller, Ph.D., Heather J. Zar, Ph.D., Dennis Brooks, M.D., Amy Grenham, M.Sc., Ulrika Wählby Hamrén, Ph.D., Vaishali S. Mankad, M.D., Pin Ren, Ph.D., Therese Takas, B.Sc., Michael E. Abram, Ph.D., Amanda Leach, M.R.C.P.C.H., M. Pamela Griffin, M.D., and Tonya Villafana, Ph.D., for the MELODY Study Group*

- Essai MELODY complété : 3012 nourrissons avant leur première saison hivernale, randomisés en nirsevimab et placebo



End Point	Placebo (N=1003)	Nirsevimab (N=2009)	Efficacy (95% CI)
	no. of participants with event (%)		
Medically attended RSV-associated LRTI	54 (5.4)	24 (1.2)	76.4 (62.3–85.2)
Hospitalization for RSV-associated LRTI	20 (2.0)	9 (0.4)	76.8 (49.4–89.4)
Very severe medically attended RSV-associated LRTI	17 (1.7)	7 (0.3)	78.6 (48.8–91.0)

Figure 1. Incidence of Medically Attended Respiratory Syncytial Virus (RSV)–Associated Lower Respiratory Tract Infection (LRTI) through 150 Days after Injection and Efficacy of Nirsevimab as Compared with Placebo.

Age at randomization					
≤3.0 months	588	28 (4.8)	1190	19 (1.6)	66.7 (40.9, 81.2)
>3.0 months	415	26 (6.3)	819	5 (0.6)	90.2 (74.7, 96.2)

VRS

Réponses Rapides : Nirsévimab (Beyfortus ®) dans la prévention des bronchiolites à virus respiratoire syncytial (VRS) chez les nouveau-nés et les nourrissons

Validée par le Collège le 14 septembre 2023

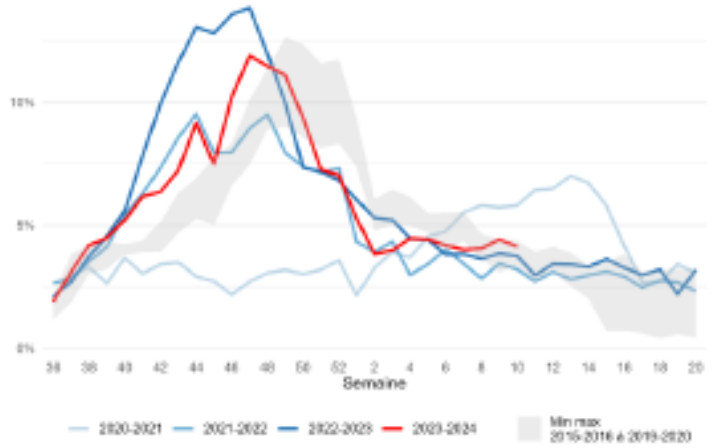
HAS HAUTE AUTORITÉ DE SANTÉ

COLLÈGE de la MÉDECINE GÉNÉRALE

CNP de Pédiatrie

- Campagne débutée en septembre 2023
- Administration préférentielle avant la sortie de la maternité
- Pour tous les nourrissons au cours de leur première année d'exposition
-

Part de la bronchiolite parmi les actes SOS Médecins chez les enfants de moins de 2 ans



Source : SOS Médecins

Santé : le médicament préventif contre la bronchiolite pris d'assaut, des maternités priorisent franceinfo:

Le Point **Bronchiolite : les parents se ruent sur le traitement préventif, déjà en rupture de stock**

- Couverture de 35% (250 00 vaccins)
- Moins d'hospitalisations ?
- Bilan définitif en attente
- Espagne : couverture 78-98%, diminution des hospitalisations de 84%

VIH

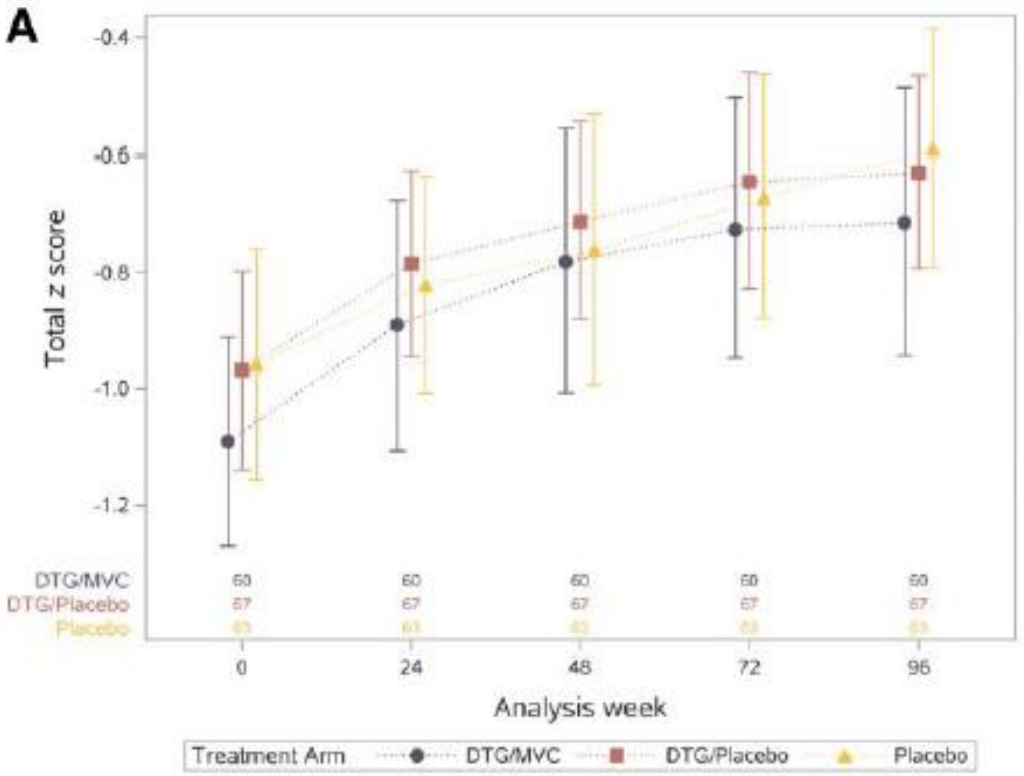
Antiretroviral Therapy Intensification for Neurocognitive Impairment in Human Immunodeficiency Virus

Scott L. Letendre,[1] Huichao Chen,[2] Ashley McKhann,[2] Jhoanna Roa,[3] Alyssa Vecchio,[4] Eric S. Daar,[5] Baiba Berzins,[6] Peter W. Hunt,[7] Christina M. Marra,[8] Thomas B. Campbell,[9] Robert W. Coombs,[8] Qing Ma,[10] Shobha Swaminathan,[11] Bernard J. C. Macatangay,[12] Gene D. Morse,[10] Thomas Miller,[3] David Rusin,[3] Alexander L. Greninger,[8] Belinda Ha,[13] Beverly Alston-Smith,[14] Kevin Robertson,[4] Robert Paul,[15] and Serena Spudich;[16] the A5324 Study Team

Clinical Infectious Diseases

MAJOR ARTICLE

- Essai randomisé à trois bras : Dolutegravir + maraviroc, dolutegravir + placebo, ou 2 placebo
- Inclusions PVVIH avec CV < 50 copies/mL, sous ART stable depuis ≥ 6 mois avec troubles neurocognitifs
- CJP : perte cognitive à 48 semaines



Caractéristiques	
Age	52 ± 8 ans
CD4	703 ± 300
Nadir CD4 < 100/mm^3	30%

- Pas d'efficacité d'une intensification thérapeutique
- Pas d'effet du dolutegravir sur la prise de poids, l'humeur, ou les capacités neurocognitives

VIH - crypto

Early Antiretroviral Therapy Not Associated With Higher Cryptococcal Meningitis Mortality in People With Human Immunodeficiency Virus in High-Income Countries: An International Collaborative Cohort Study

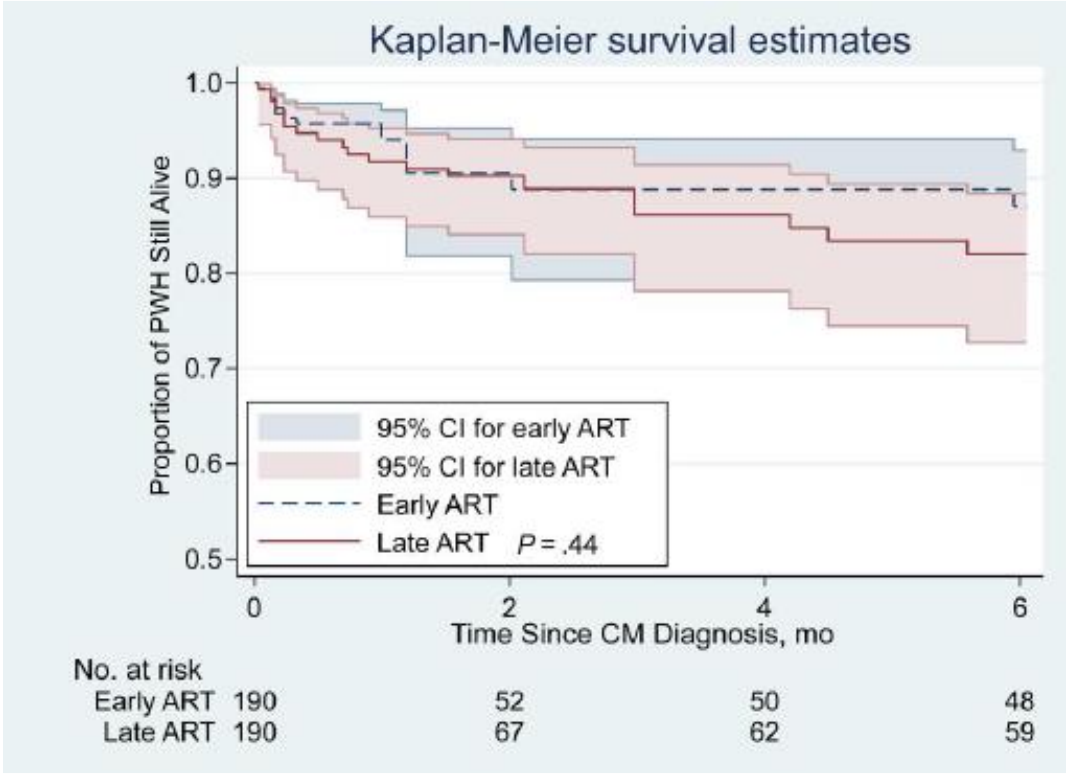
Suzanne M. Ingle,[1,a] Jose M. Miro,[2,3,a] Margaret T. May,[1] Lauren E. Cain,[4,5] Christine Schwimmer,[6] Robert Zangerle,[7] Helen Sambatakou,[8] Charles Cazanave,[9] Peter Reiss,[10] Vanessa Brandes,[11] Heiner C. Bucher,[12] Caroline Sabin,[13] Francesc Vidal,[14,15] Niels Obel,[16] Amanda Mocroft,[17] Linda Wittkop,[18] Antonella d'Arminio Monforte,[19] Carlo Torti,[20] Cristina Mussini,[21] Hansjakob Furrer,[22] Deborah Konopnicki,[23] Ramon Teira,[24] Michael S. Saag,[25] Heidi M. Crane,[26] Richard D. Moore,[27] Jeffrey M. Jacobson,[28] W. Chris Mathews,[29] Elvin Geng,[30] Joseph J. Eron,[31] Keri N. Althoff,[32] Abigail Kroch,[33] Raynell Lang,[32] M. John Gill,[34] and Jonathan A. C. Sterne,[1] on behalf of ART-CC, COHERE in EuroCoord, CNICS, and NA-ACCORD

Clinical Infectious Diseases

MAJOR ARTICLE

- Analyse des données de 30 cohortes européennes/nord américaines
- 190 PVVIH naïfs avec cryptococcose neuroméningée
- Modélisation d'essais émulés : ≤14j vs [15-56]j

Caractéristique	N=190
Sexe masculin	83%
Âge	38 [33-44]
Taux CD4	19 [10-56] /mm^3
CV	5.3 [4.9-5.6] $\log_{10}$ copies/mL
Délai initiation ART	23 [6-42] jours
Décès à 6 mois	17%



VIH - histoplasmose

Single High Dose of Liposomal Amphotericin B in Human Immunodeficiency Virus/AIDS-Related Disseminated Histoplasmosis: A Randomized Trial

Alessandro C. Pasqualotto,[1,2,9] Daiane Dalla Lana,[1] Cassia S. M. Godoy,[3,4] Terezinha do Menino Jesus Silva Leitão,[5,6] Monica B. Bay,[7,8] Lisandra Serra Damasceno,[5,6] Renata B. A. Soares,[3,4] Roger Kist,[2] Larissa R. Silva,[1] Denusa Wiltgen,[1,2] Marineide Melo,[5] Taiguara F. Guimarães,[3] Marilia R. Guimarães,[10] Hareton T. Vechi,[7] Jacó R. L. de Mesquita,[5] Gloria Regina de G. Monteiro,[7,8] Antoine Adenis,[11] Nathan C. Bahr,[12] Andrej Spec,[13] David R. Boulware,[14] Dennis Israelski,[15] Tom Chiller,[16] and Diego R. Falci[17,18]

Clinical Infectious Diseases

MAJOR ARTICLE

- 118 patients VIH + histoplasmose randomisés en 3 groupes:
  - 1 dose L-AmB 10 mg/kg puis itraconazole
  - 1 dose L-AmB 10 mg/kg à J1, puis 1 dose L-AmB 5 mg/kg à J3, puis itraconazo
  - 15 jours de L-AmB 3 mg/kg pendant 14 jours puis itraconazole

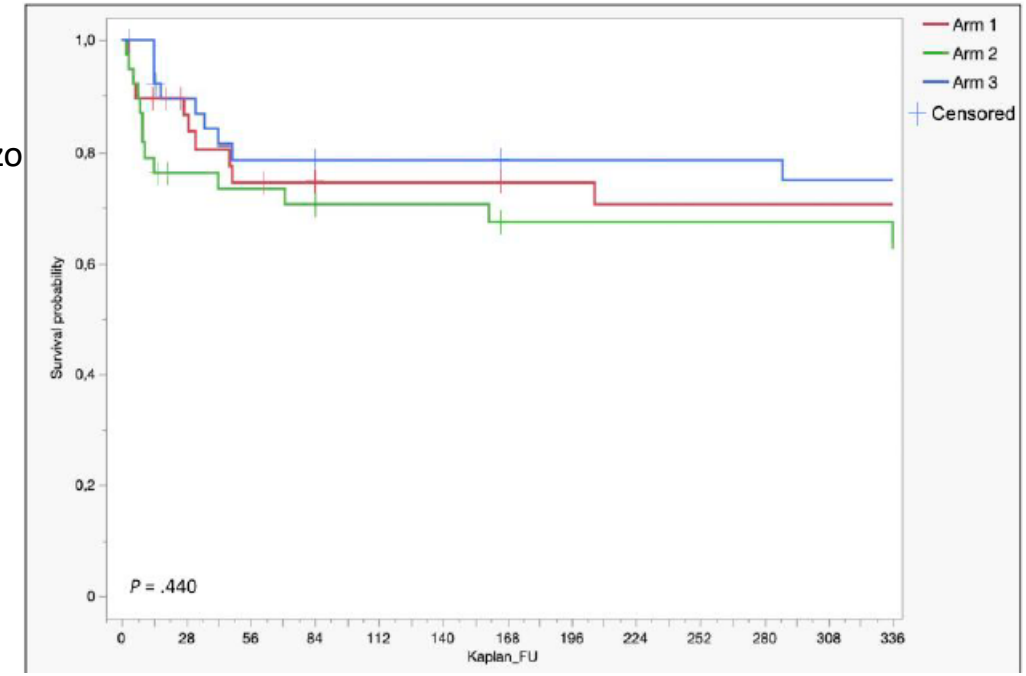


Table 1. Baseline Demographic, Clinical, and Laboratorial Findings of AIDS Patients With Disseminated Histoplasmosis Included in Each of the Three Study Arms of Induction Therapy With Liposomal Amphotericin B in Brazil (2020–2022)

	Arm 1	Arm 2	Arm 3
Age in years (median)	40	39	39
Male sex	88%	72%	87%
On antiretroviral therapy	32%	38%	26%
CD4 count cells/μL (median)	27	27	22
Viral load, $\log_{10}$ (median)	5.3	5.2	5.6

- Pas de différence de guérison à J14, survie ou toxicité
- Essai phase 3 en cours

Vaccinologie

Vaccination et dengue

Live, Attenuated, Tetravalent Butantan–Dengue Vaccine in Children and Adults

E.G. Kallás, M.A.T. Cintra, J.A. Moreira, E.G. Patiño, P.E. Braga, J.C.V. Tenório, V. Infante, R. Palacios, M.V.G. de Lacerda, D.B. Pereira, A.J. da Fonseca, R.Q. Gurgel, I.C.-B. Coelho, C.J.F. Fontes, E.T.A. Marques, G.A.S. Romero, M.M. Teixeira, A.M. Siqueira, A.M.P. Barral, V.S. Boaventura, F. Ramos, E. Elias Júnior, J. Cassio de Moraes, D.T. Covas, J. Kalil, A.R. Precioso, S.S. Whitehead, A. Esteves-Jaramillo, T. Shekar, J.-J. Lee, J. Macey, S.G. Kelner, B.-A.G. Coller, F.C. Boulos, and M.L. Nogueira

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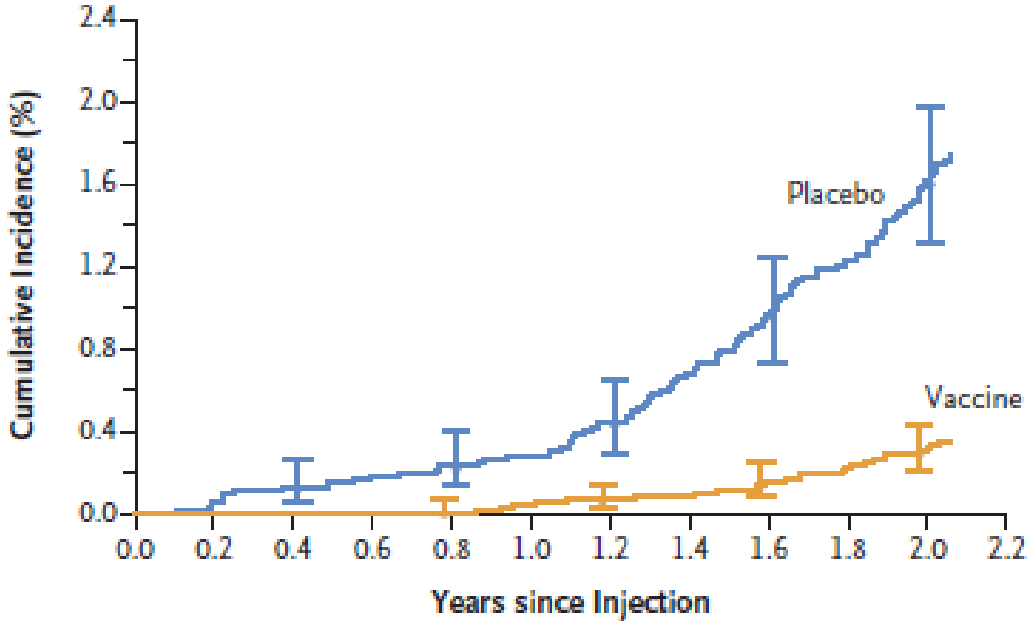
- Essai phase 3 en double aveugle au Brésil d'une dose de Butantan-DV (vaccin vivant atténué tétravalent)

Participants inclus	N=16 235
Age :	
- 2 à 6 ans	31%
- 7 à 17 ans	32%
- 18 à 59 ans	37%
Exposition antérieure à la dengue	50%
- Dont infection à 4 sérotypes	36%

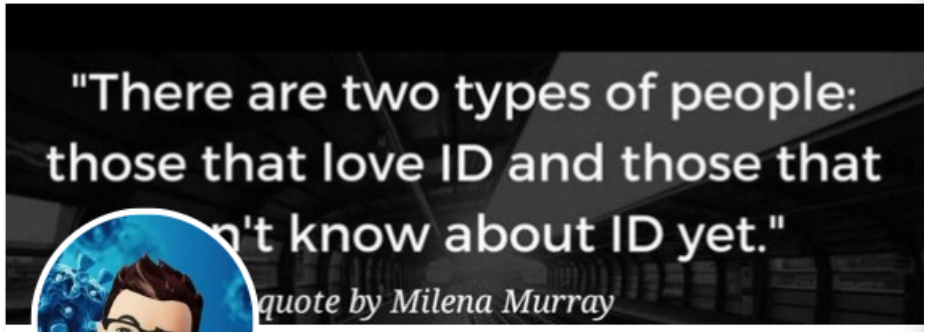
- Dengue symptomatique :
  - Non immunisé : 74% (IC 95% 58-84)
  - Immunisé : 89% (IC 95% 78-96)
- Tolérance excellente (exanthème 23%)
- Attention aucun cas de DENV-3 ou DENV4 (période Zika)



No. at Risk

Placebo	5,946	5,865	5,811	5,741	5,668	5,571
Vaccine	10,213	10,014	9,925	9,840	9,750	9,628

- Données à 5 ans attendues



Abonné

Antibiotic Steward Bassam Ghanem BCIDP

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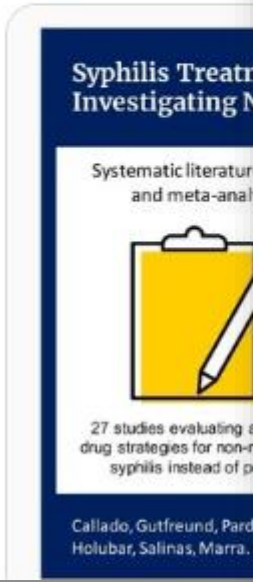
Bassam Ghanem, Pharm.D., MS, BCPS

Antibiotic Steward Bassam Ghanem BCIDP @ABstewar · 15 mars

NEW ⚡⚡#TID
Effect of letermovir initiation on tacrolimus concentrations among lung transplant recipients receiving concomitant azole antifungal prophylaxis
#IDXposts #TxID

Antibiotic Steward Bassam Ghanem BCIDP @ABstewar · 13 mars

NEW🔥 Systematic Review and Meta-Analysis @OFIDJournal
Investigating Non-Penicillin Therapeutic Strategies in Syphilis Treatment
Penicillin monotherapy did not outperform ceftriaxone, azithromycin, or doxycycline.
#IDXposts acader



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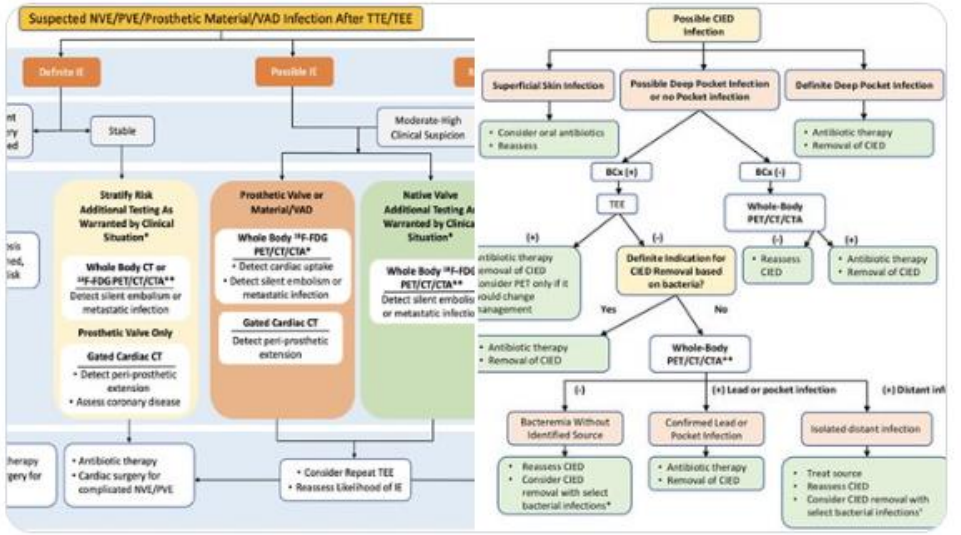
18F-FDG PET/CT and radiolabeled leukocyte SPECT/CT imaging for the evaluation & management of cardiovascular infection in multimodality context: Consensus Recommendations from ASNC AATS,ACC,AHA,ASE,EANM,HRS, @IDSAInfo ,SCCT, SNMMI, & STS
academic.oup.com/cid/article/do...



Timothy Li
2 620 posts

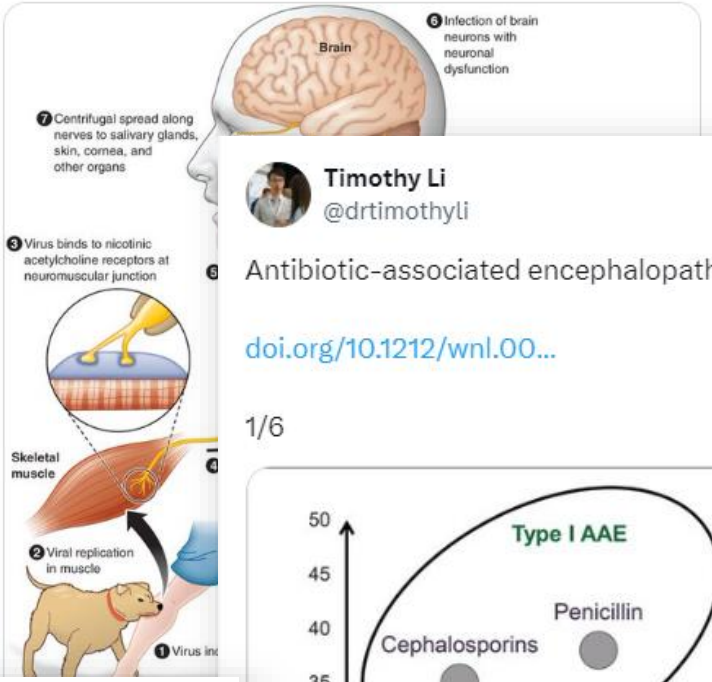
Abonné

Timothy Li
@drtimothyli

ID physician @CUHKMedicine • #abxstewardship • #penicillinallergy • Certificate in Travel Health®

Hong Kong A rejoint Twitter en octobre 2019

Timothy Li @drtimothyli · 16 févr.
Pathogenesis of rabies

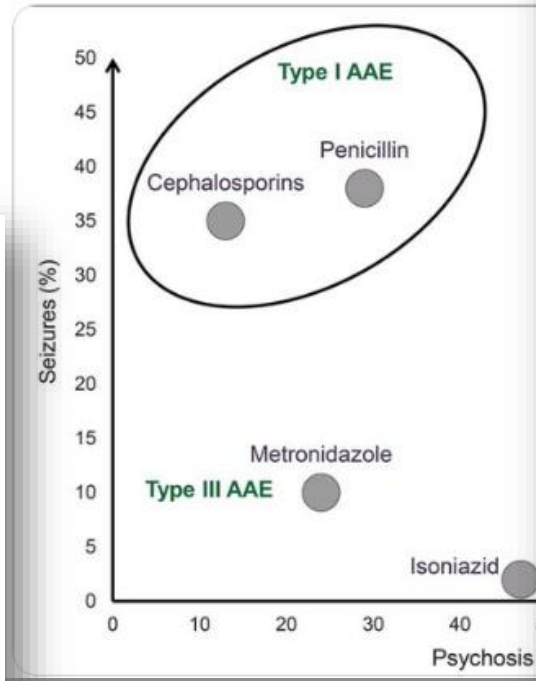


Timothy Li
@drtimothyli

Antibiotic-associated encephalopathy (AAE) 💊🧠

doi.org/10.1212/wnl.00...

1/6



Timothy Li
@drtimothyli

Tissue is the issue

Remember to send specimens for cultures, which can be immensely helpful for identification and susceptibility testing of the causative organisms

Traduire le post

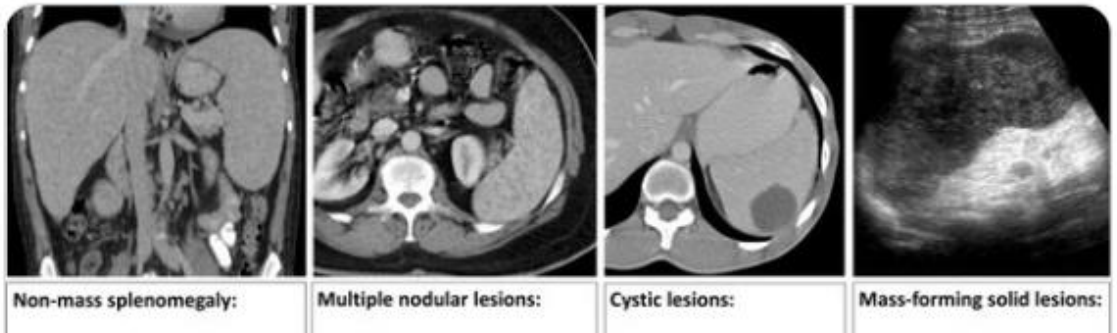
Biopsy done
Tissue sent
But not for culture

Timothy Li
@drtimothyli

✨Imaging features of splenic diseases with differential diagnosis

doi.org/10.1007/s00261...

Traduire le post



KASIC.MDRO
384 posts

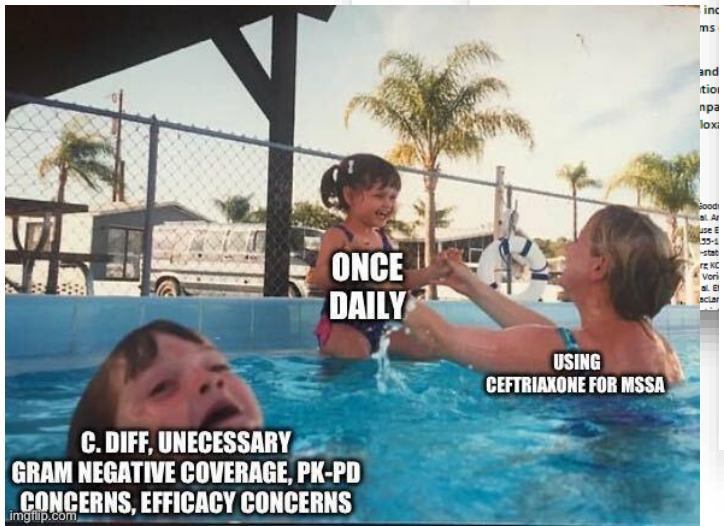
KASIC
Protecting Antimicrobials to Protect the Commonwealth

Abonné

KASIC.MDRO
@KASIC_MDRO

KASIC was established to innovate and expand antimicrobial stewardship across the Commonwealth of Kentucky. All resources can be found here: kymdro.org/kasic/

Louisville, KY A rejoint Twitter en avril 2022



Kentucky Antimicrobial Stewardship Innovation Consortium

Educational Pearl

Pick Your Poison: Linezolid or Vancomycin for MRSA Pneumonia

While many antimicrobials have activity against MRSA, the 2016 Infectious Diseases Society of America Hospital-acquired pneumonia/Ven… pneumonia.[1] Bo… individual host f…

Antibiotic Consi…
Selection is base… pathogens.

Adverse effects[2-7]	
Drug Interactions	
Administrati…	
Antimicrobia… Resistance[8-9]	

Key Takeaway:
Most severe a… Linezolid resist… definitive oral… activity and im…

QTc Prolongation: Fluoroquinolones, Macrolides, and Azole Antifungals

Fluoroquinolones, macrolides, and azole antifungals are commonly prescribed antimicrobial agents, and they all can prolong the QTc interval. How long does each agent prolong the QTc interval? How should QTc prolongation be managed?

How much does each agent prolong the QTc interval?
The extent of QTc prolongation varies between agents among different studies and is summarized in Table 1.

Table 1: Approximate QTc Prolongation and Half-life by Antimicrobial

Fluoroquinolones[1,2]	QTc Prolongation	Half-life	Macrolides[3-5]	QTc Prolongation	Half-life	Azole Antifungals[6,7]	QTc Prolongation	Half-life
Ciprofloxacin	2-5 ms	5 h	Azithromycin	5-9 ms	72 h	Isavuconazole	-18 ms	130 h
Levofloxacin	3.5-15 ms	7 h	Clarithromycin	11 ms	5 h	Fluconazole	10 ms	30 h
Moxifloxacin	16-18 ms	12 h	Erythromycin	50 ms	2 h	Voriconazole	21 ms	6 h

How should QTc Prolongation…
Risk management strategies can va… drugs such as anti-arrhythmic and…

Figure 1: Risk Management Stra…

How Long is Too Long?
A normal QTc is <450 ms in males …

Pick your Team: Are you #TeamASPs or #TeamCefazolin for MSSA Infections?

β-lactam antibiotics are associated with reduced mortality and are preferred over vancomycin in the definitive treatment of severe methicillin-susceptible *Staphylococcus aureus* (MSSA) infections.[1-2] Commonly used anti-MSSA β-lactams include anti-staphylococcal penicillins (ASPs) and cefazolin. When it comes to treating a severe MSSA infection, how do you pick your poison?

Safety
Cefazolin is usually better tolerated than ASPs. ASPs have higher rates of discontinuation due to rash, phlebitis, hyperkalemia, hyponatremia, neutropenia, allergic inter… unneeded gram-negative activity compa… Cefazolin can also be given safely to pat…

Efficacy
Inoculum Effect - Historically, cefazolin … showed reduced efficacy of cefazolin in … However, observational studies compar… and in some cases, lower mortality[4-5]. M… by selection bias (e.g. picking ASPs over… will further evaluate ASPs vs cefazolin in…

CNS Infections - Cefazolin has been histo… breakthrough infections with other 1st g… observational data demonstrate that hig… treatment of CNS infections.[7]

Table 1. Summary of considerations for …

Dosing	1 – 2 g IV every … continuous infus…
Dose adjustments	No renal or hepa…
Tolerability[3]	Higher rates of a…
C. difficile infection risk	Low - Moderate…
Antimicrobial Resistance Considerations	Narrow spectrum … *Staphylococcus …*
Role in CNS Infections[7]	Regarded as dru… CNS infections

Key Takeaway: Despite theoretical conc… good as anti-staphylococcal penicillins i… administer but is broader spectrum and…

Three versus Five Days of Azithromycin

Azithromycin is a macrolide antibiotic with activity against many respiratory tract organisms, including *Streptococcus pneumoniae*, *Haemophilus influenzae*, *Moraxella catarrhalis*, and atypical pneumonia pathogens.[1] Given its spectrum of activity, it is commonly used for the treatment of community-acquired pneumonia (CAP). The Infectious Diseases Society of America/American Thoracic Society CAP Guidelines recommend a β-lactam antibiotic with azithromycin for a minimum of 5 days.[2]

The recc… This dos… orders c… 500 mg … treatme…

How do…

Azithron… betweer… concent…

How do…

A retros… day 1, th… clinicall… was also… effective…

Longer c…

Know your Antibiotic: Ceftriaxone for MSSA Infections

The ceftriaxone package insert reports activity against various gram-negative and gram-positive organisms including methicillin susceptible *Staphylococcus aureus* (MSSA). Ceftriaxone is commonly dosed once daily for most infections.[1] However, there are efficacy concerns with ceftriaxone for MSSA infections and ceftriaxone has broad gram-negative activity and is a high risk antibio… for *C. difficile* infection. Does the convenience of ceftriaxone once daily dosing overcome the efficacy concerns?

Does ceftriaxone pharmacokinetic-pharmacodynamic (PK-PD) data support its use for MSSA?

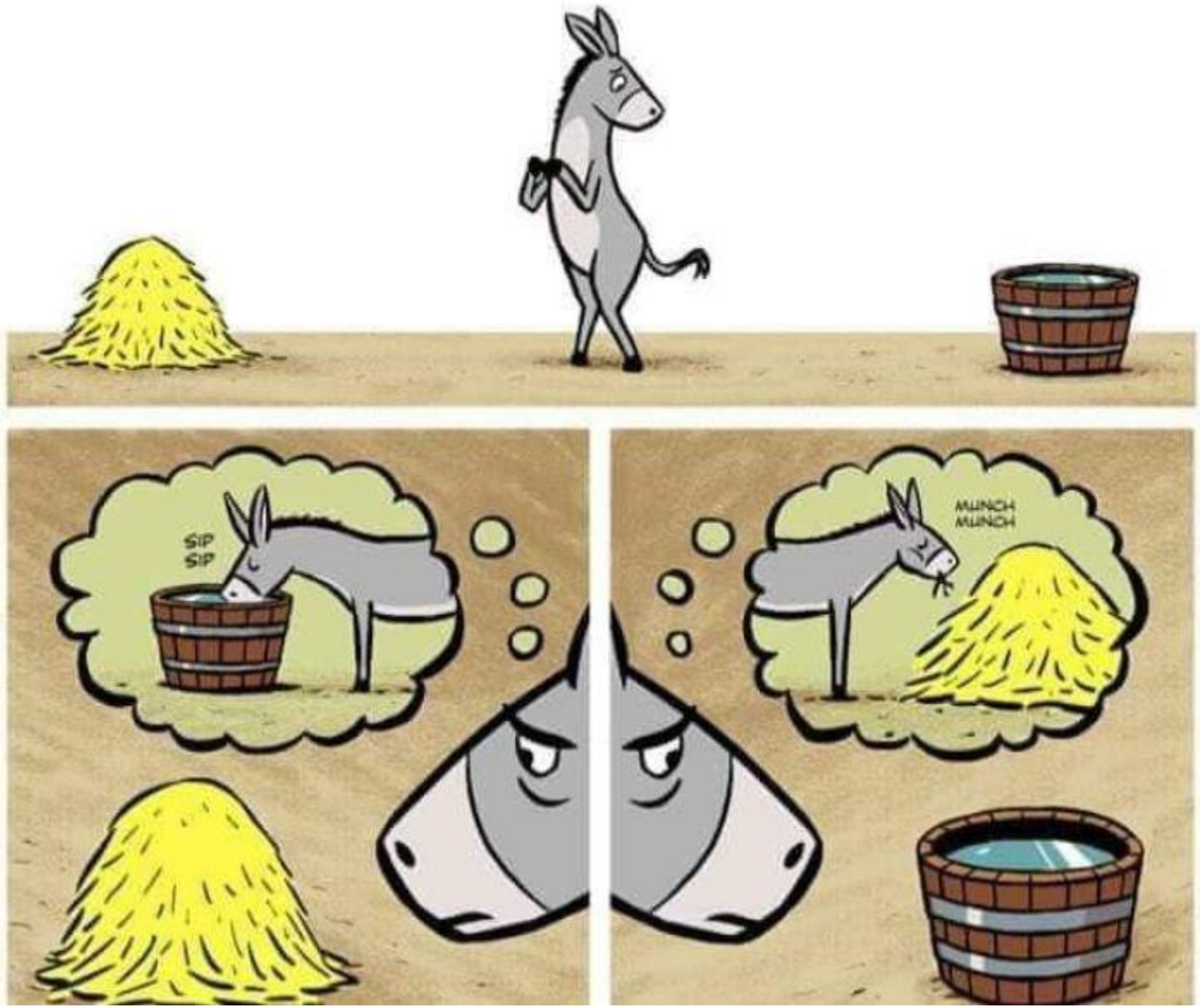
Yes, but **dosing matters.** In a PK-PD simulation study of different cefazolin and ceftriaxone dosing regimens, only ceftriaxone 2 g Q12H was able to achieve reliable bacterial killing against most MSSA isolates. Ceftriaxone 1-2 g Q24H **FAILED** at even being able achieve bacteriostasis. Comparatively, just cefazolin 2 g every 12 hours predicted extensive killing of MSSA.[2]

What about clinical data on ceftriaxone for MSSA?

Observational data reports mixed outcomes and no prospective clinical trials exist.

✗ A multicenter, retrospective cohort study found increased mortality or recurrence with ceftriaxone (84% receiving 2 g daily) compared with an anti-staphylococcal penicillin (ASP) or cefazolin in the treatment of MSSA bacteremia, despite lower rates of

Paradoxe de l'âne de Buridan
Choisir c’est renoncer !



Ecologie – Qualité des soins et empreinte énergétique

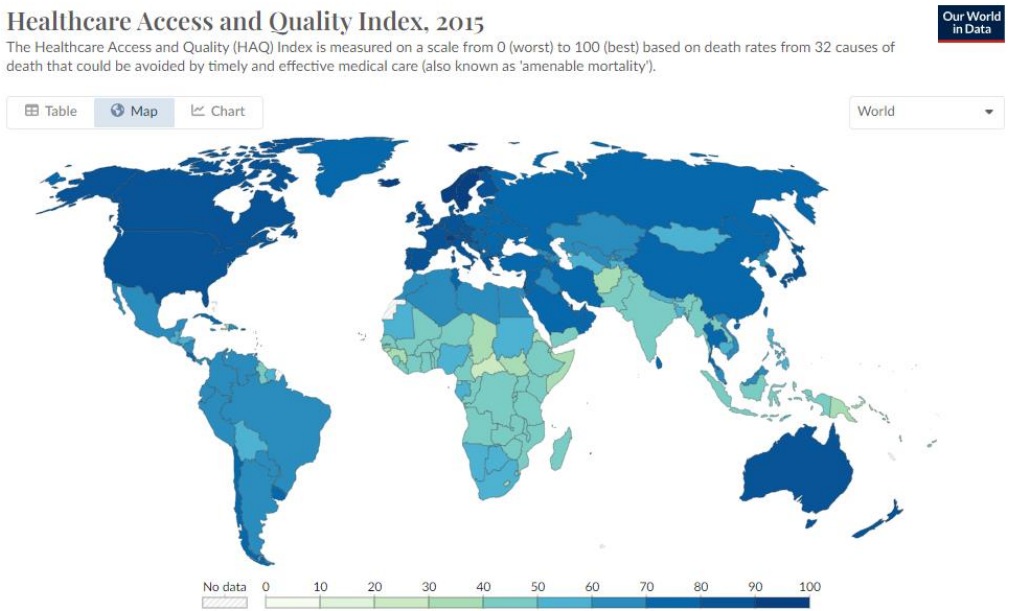
THE LANCET Planetary Health

THE SHIFT PROJECT
THE CARBON TRANSITION THINK TANK

Health-care systems' resource footprints and their access and quality in 49 regions between 1995 and 2015: an input–output analysis

Baptiste Andrieu, Laurie Marrauld, Olivier Vidal, Mathis Egnell, Laurent Boyer, Guillaume Fond

- Healthcare Access and Quality (HAQ) index : définition OMS
- Corrélé de manière exponentielle à l'empreinte énergétique
- Intérêt d'ajouter un critère d'Efficience (HAQE ?)



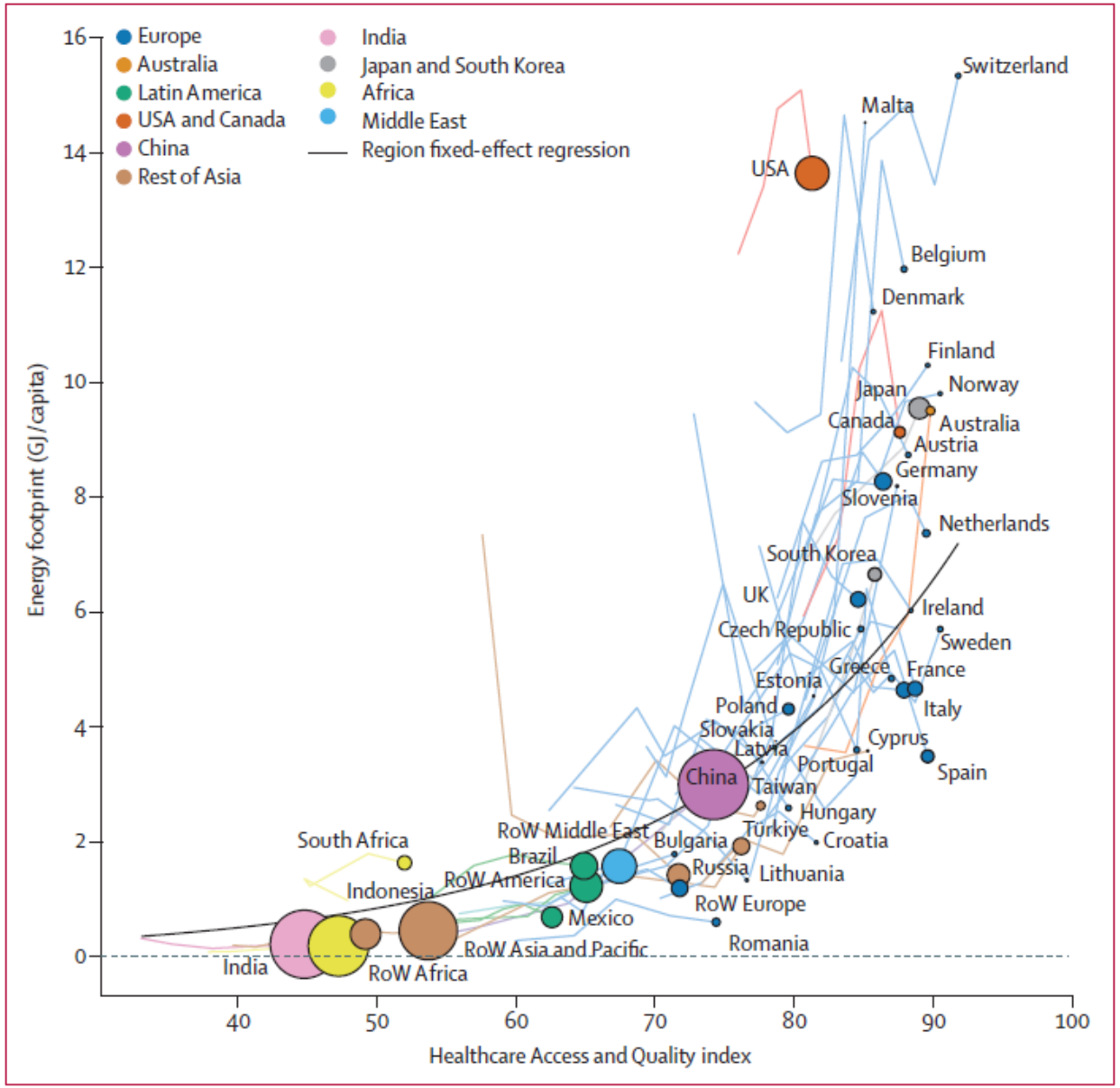


Figure 3: Energy footprint of health-care systems scales exponentially with the Healthcare Access and Quality index

Ecologie – Impact des antibiotiques

ICM INTENSIVE CARE MEDICINE
THE OFFICIAL JOURNAL OF ESICM

WHAT'S NEW IN INTENSIVE CARE

Environmental sustainability and antimicrobials: an underestimated problem with far-reaching consequences

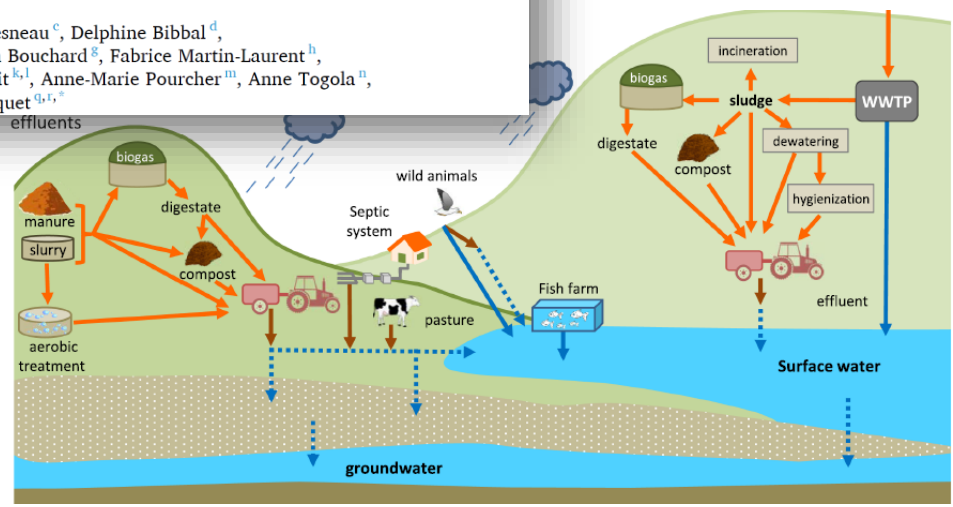
Jan J. De Waele[1,2*], Isabel Leroux-Roels[3,4,5] and Andrew Conway-Morris[6,7,8]

Contents lists available at ScienceDirect
Environment International
journal homepage: www.elsevier.com/locate/envint

Environmental contamination in a high-income country (France) by antibiotics, antibiotic-resistant bacteria, and antibiotic resistance genes: Status and possible causes

Marisa Haenni[a], Christophe Dagot[b], Olivier Chesneau[c], Delphine Bibbal[d], Jérôme Labanowski[e], Michèle Vialette[f], Damien Bouchard[g], Fabrice Martin-Laurent[h], Louisiane Calsat[i], Sylvie Nazaret[j], Fabienne Petit[k,l], Anne-Marie Pourcher[m], Anne Togola[n], Morgane Bachelot[o], Edward Topp[p], Didier Hocquet[q,r,*]

Location			
Activity	Production	Transportation	Administration
Resources required	Raw materials Water Energy Packaging	Energy	Energy Disposables
Impact	Chemical waste CO_2 Wastewater	CO_2	Chemical waste CO_2 Wastewater



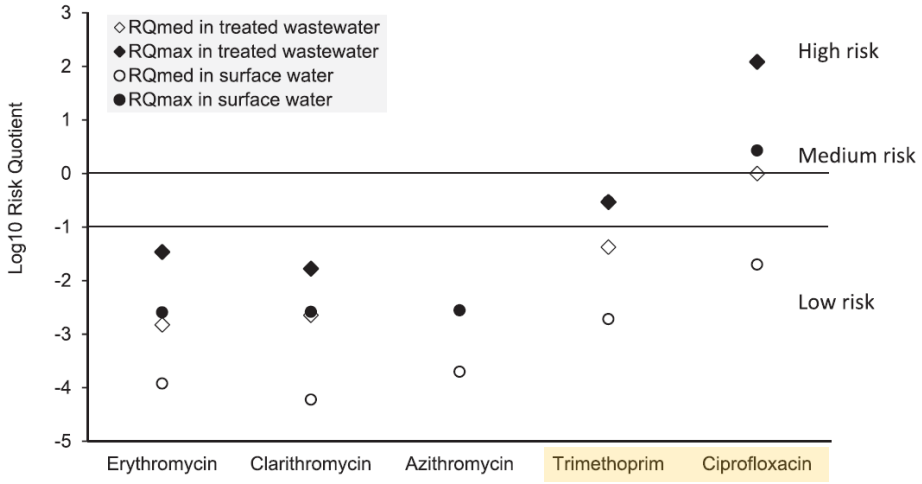


Fig. 8. Risk quotients (RQs) for aquatic environments (treated wastewater and surface water) in France. RQ_{max} (RQ maximum) and RQ_{med} (RQ median) were based on maximum and median measured environmental concentrations (MECs) divided by the PNEC-R determined experimentally with the SELECT method (Murray et al., 2020). MECs were extracted from Supplemental Table 1. RQs were represented on a logarithmic scale. High, medium, and low risks were defined by Log_{10} RQ values > 0, −1 to 0, and < -1, respectively. We kept for analysis antibiotics whose MEC was assessed > 10 times and which were above the detection limit in > 10 % of the cases.

Ecologie – Paracétamol IV vs PO

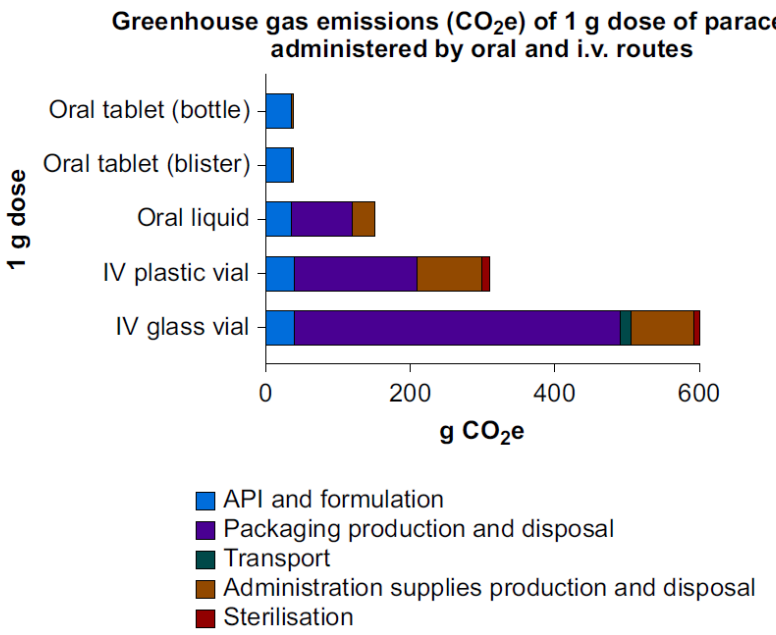
BJA British Journal of Anaesthesia

CLINICAL INVESTIGATION

Environmental and financial impacts of perioperative paracetamol use: a multicentre international life-cycle analysis

Jessica F. Davies[1,2,*], Scott McAlister[2], Matthew J. Eckelman[3], Forbes McGain[2,4,5], Richard Seglenieks[2,5,6], Elena N. Gutman[7], Jonathan Groome[8,9], Natasha Palipane[10], Katherine Latoff[3], Dominic Nielsen[11], Jodi D. Sherman[7,12], and the TRA2SH, GASP, and WAAREN collaborators

- 26 Hôpitaux en USA, UK et Australie
- Impact carbone paracetamol péri-opératoire
- 70-80% patients reçoivent paracetamol en IV
- IV vs PO : 12-70x plus polluant / 50-150x plus cher



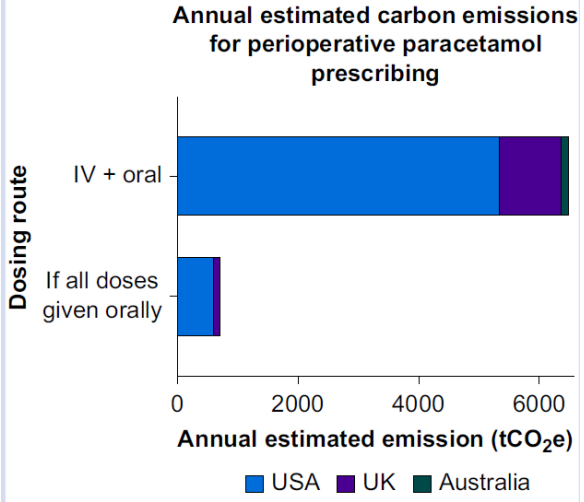


Fig 5. Annual estimated environmental impacts as a result of using perioperative prescribing rates of i.v. and oral routes from five USA hospitals, 11 UK hospitals, and 10 Australian hospitals applied to national estimates of eligible surgical patients, and if all doses are given orally (i.e. all i.v. doses replaced with an oral dose). CO_2e, greenhouse gas emissions expressed as metric tonnes of carbon dioxide equivalents.

thebmj

SUSTAINABLE PRACTICE

Sustainable practice: Prescribing oral over intravenous medications

Min Na Eii, [1] Sarah Walpole, [2,3] Catherine Aldridge[3]

Medication	Bioavailability according to electronic medicines compendium (https://www.medicines.org.uk/emc)
Amoxicillin	70%
Digoxin	63% (tablet form) 75% (oral solution)
Doxycycline	"virtually completely absorbed after oral administration" No percentage provided
Esomeprazole	64% after a single dose, 89% after repeated once daily administration
Fluconazole	Over 90%
Levetiracetam	Close to 100%
Levofloxacin	99-100%
Metronidazole	"Almost completely absorbed"
Paracetamol	"Readily absorbed"
Voriconazole	96%

- Inconvénients multiples voie IV (prix, risque infectieux, inconfort, matériel d'administration, durée hospitalisation …)
- Bénéfice IV incertain pour de nombreuses molécules (antibiotiques +++)

Bactériémie *S. aureus* : relais oral

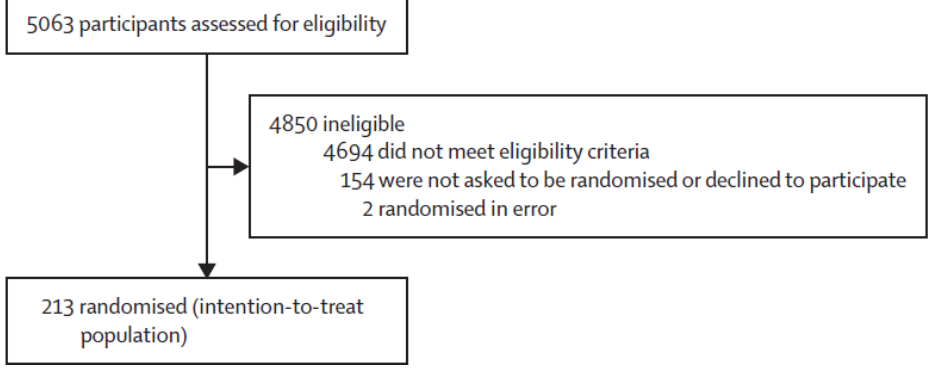
THE LANCET Infectious Diseases

SABATO iv → oral

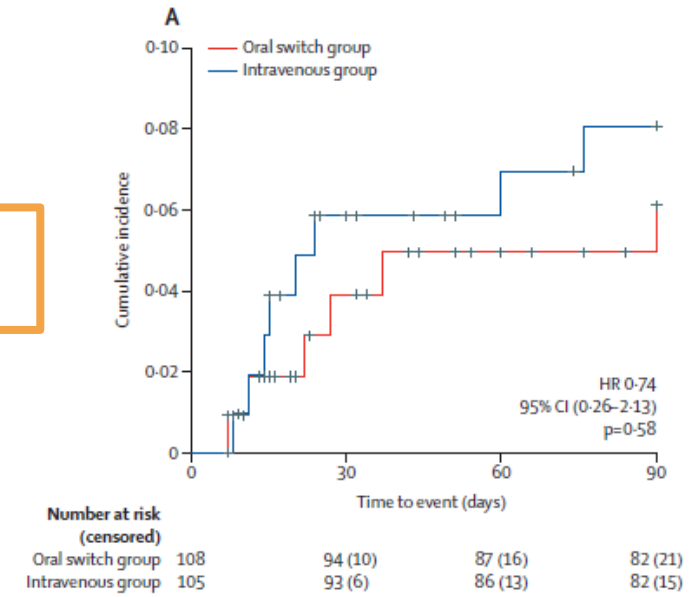
Efficacy and safety of an early oral switch in low-risk *Staphylococcus aureus* bloodstream infection (SABATO): an international, open-label, parallel-group, randomised, controlled, non-inferiority trial

Achim J Kaasch, Luis Eduardo López-Cortés, Jesús Rodríguez-Baño, José Miguel Cisneros, M Dolores Navarro, Gerd Fätkenheuer, Norma Jung, Siegbert Rieg, Raphaël Lepeule, Laetitia Coutte, Louis Bernard, Adrien Lemaignen, Katrin Kösters, Colin R MacKenzie, Alex Soriano, Stefan Hagel, Bruno Fantin, Matthieu Lafaurie, Jean-Philippe Talarmin, Aurélien Dinh, Thomas Guimard, David Boutoille, Tobias Welte, Stefan Reuter, Jan Kluytmans, Maria Luisa Martin, Emmanuel Forestier, Hartmut Stocker, Virginie Vitrat, Pierre Tattevin, Anna Rommerskirchen, Marion Noret, Anne Adams, Winfried V Kern, Martin Hellmich, Harald Seifert, for the SABATO study group*

- Randomisée, ouverte contrôlée, non infériorité
- 31 centres
- 5-7 j IV puis relais PO ou IV
- CJP : complication à J90 (rechute, infection profonde et mortalité)



14/108 (13%) PO vs 13/105 (12%) IV
=> -0,7% (–7,8-9,1; p=0,013)



Contents lists available at ScienceDirect

Clinical Microbiology and Infection

journal homepage: www.clinicalmicrobiologyandinfection.com

ELSEVIER

CMI CLINICAL MICROBIOLOGY AND INFECTION ESCMID

Original article

Sequential oral antibiotic in uncomplicated *Staphylococcus aureus* bacteraemia: a propensity-matched cohort analysis

Itziar Diego-Yagüe [1], Alberto Mora-Vargas [1], Jose Manuel Vázquez-Comendador [1], Beatriz Santamarina-Alcantud [2], Ana Fernández-Cruz [1], Elena Múñez-Rubio [1], Andrea Gutiérrez-Villanueva [1], Isabel Sanchez-Romero [2], Victor Moreno-Torres [1, 3, 4], Antonio Ramos-Martínez [1, 3, 5], Jorge Calderón-Parra [1, 3, 5, *]

- Rétrospective, monocentrique, 2015-2020
- 230/407 SAB : 112 PO, 118 IV
- CJP : mortalité et/ou échec microbio à J90
- Non-infériorité traitement oral score propension (Risque Relatif 0.42; 95% CI, 0.22-0.79)

Bactériémie *S. aureus* : Association ?

nature medicine

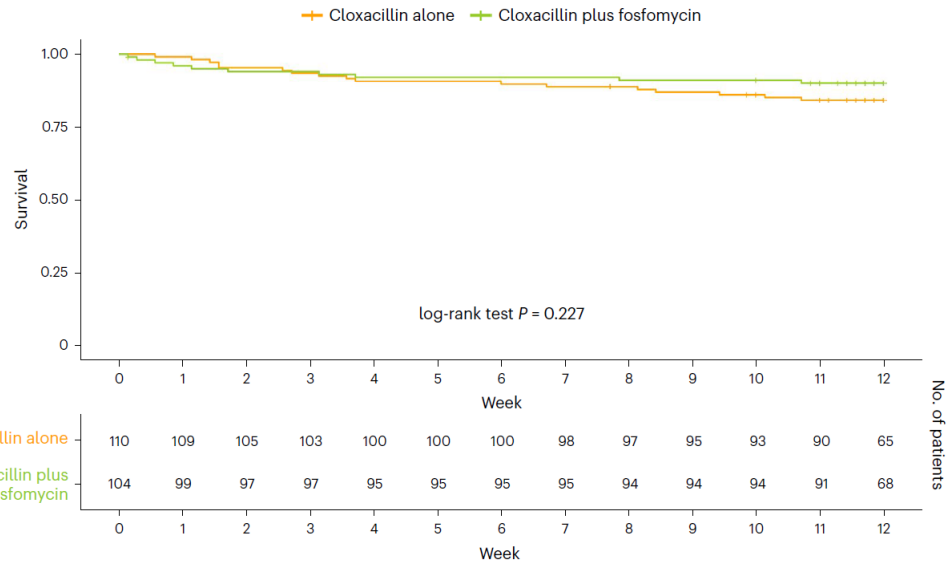
Article

https://doi.org/10.1038/s41591-023-02569-0

Cloxacillin plus fosfomycin versus cloxacillin alone for methicillin-susceptible *Staphylococcus aureus* bacteremia: a randomized trial

Sara Grillo[1,2,3], Miquel Pujol[1,2,3] ✉, Josep M. Miró[2,4,5,6], Joaquín López-Contreras[7,8], Gorane Euba[9,10], Oriol Gasch[11,12,13], Lucia Boix-Palop[14], Maria José Garcia-País[15,16], Maria Teresa Pérez-Rodríguez[17,18], Silvia Gomez-Zorrilla[2,19,20], Isabel Oriol[21], Luis Eduardo López-Cortés[2,22,23], Maria Luisa Pedro-Botet[24,25], Rafael San-Juan[2,26,27,28], José María Aguado[2,26,27], Francesca Gioia[29,30], Simona Iftimie[31,32], Laura Morata[2,4,5,6], Alfredo Jover-Sáenz[33], Graciano García-Pardo[2,34,35], Belén Loeches[2,36], Álvaro Izquierdo-Cárdenas[7,8], Ane Josune Goikoetxea[9,10], Aina Gomila-Grange[11,13], Beatriz Dietl[14], Damaris Berbel[37,38], Sebastian Videla[4,39,40], Pilar Hereu[4,39,40], Ariadna Padullés[41], Natalia Pallarès[42], Cristian Tebé[42], Guillermo Cuervo[5,6], Jordi Carratalà[1,2,3,4] ✉ & SAFO study group*

- Randomisée, contrôlée, ouverte, supériorité, multicentrique
- CJP : succès ttt à J7
- 215 patients



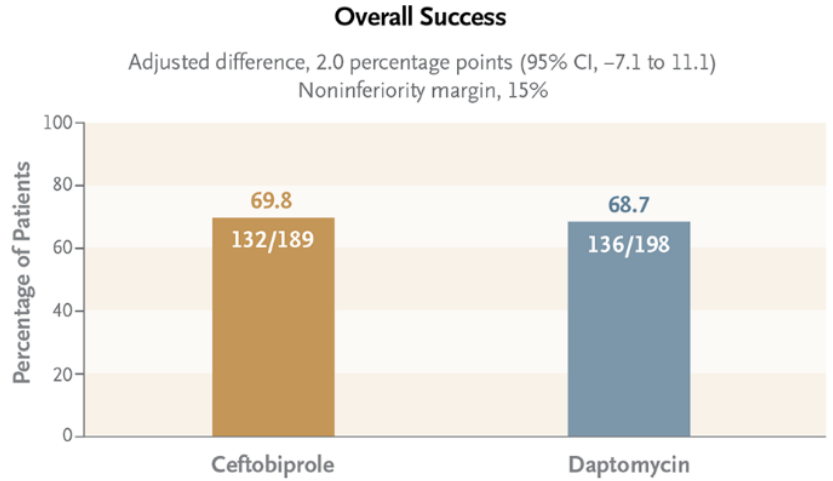
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Ceftobiprole for Treatment of Complicated *Staphylococcus aureus* Bacteremia

T.L. Holland, S.E. Cosgrove, S.B. Doernberg, T.C. Jenkins, N.A. Turner, H.W. Boucher, O. Pavlov, I. Titov, S. Kosulnykov, B. Atanasov, I. Poromanski, M. Makhviladze, A. Anderzhanova, M.E. Stryjewski, M. Assadi Gehr, M. Engelhardt, K. Hamed, D. Ionescu, M. Jones, M. Saulay, J. Smart, H. Seifert, and V.G. Fowler, Jr., for the ERADICATE Study Group*

- Randomisée, contrôlée, aveugle, non infériorité, internationale
- Ceftobiprole vs Daptomycine (+/- aztreonam)
- CJP : succès clinique à J70



Limites :
- Daptomycine 6 mg/kg
- 24% SARM
- Bactériémies non réellement compliquées

Bactériémie *S. aureus :* enquête de pratique

Clinical Infectious Diseases

MAJOR ARTICLE

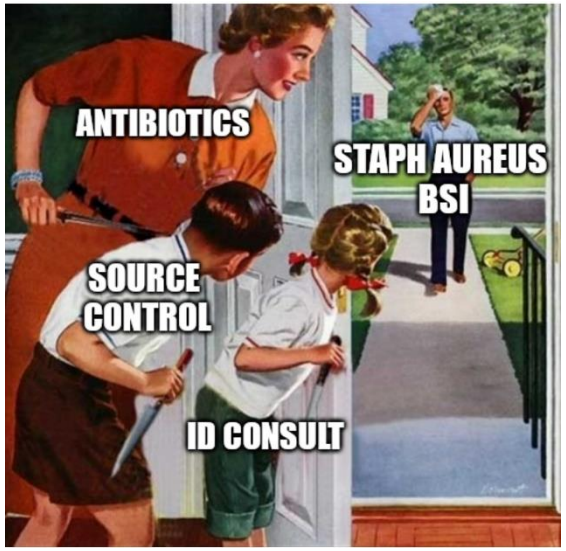
IDSA Infectious Diseases Society of America · hivma hiv medicine association · OXFORD

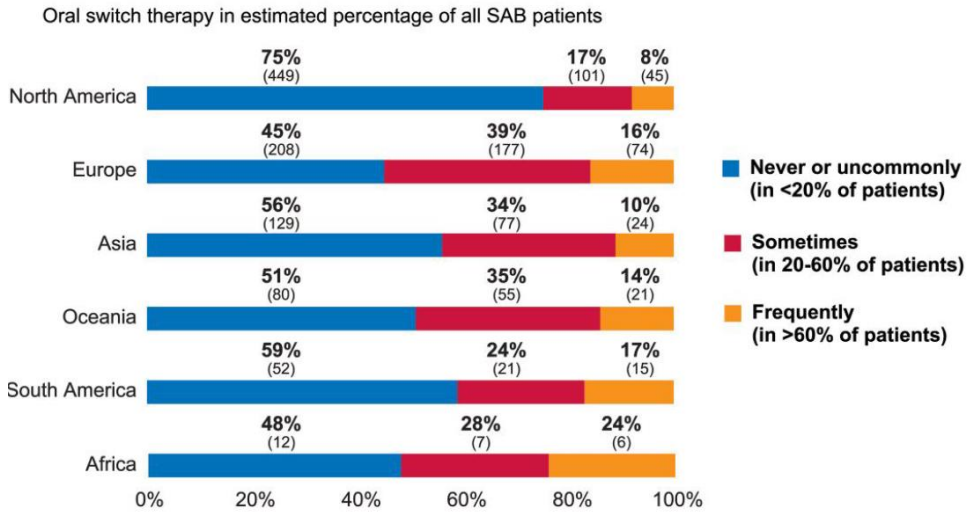
Global Differences in the Management of *Staphylococcus aureus* Bacteremia: No International Standard of Care

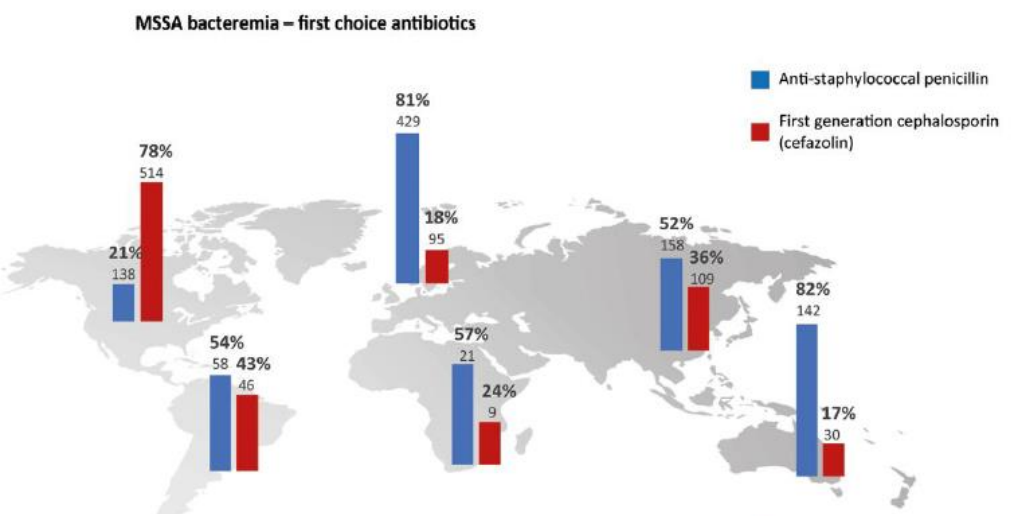
Annette C. Westgeest,[1,2] David T. P. Buis,[3] Kim C. E. Sigaloff,[3] Felicia Ruffin,[1] Leo G. Visser,[2] Yunsong Yu,[4] Emile F. Schippers,[2,5] Merel M. C. Lambregts,[2] Steven Y. C. Tong,[6,7] Mark G. J. de Boer,[2,8] and Vance G. Fowler Jr [1,9]

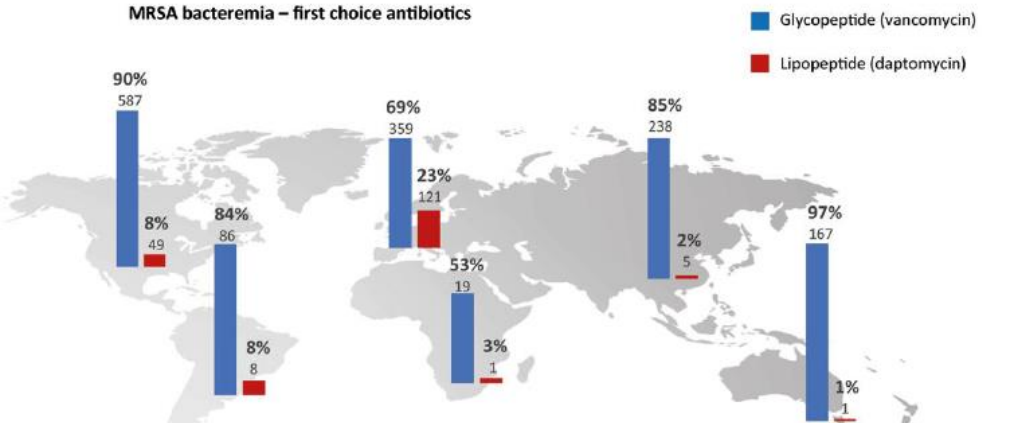
- 2031 praticiens, 71 pays, 6 continents

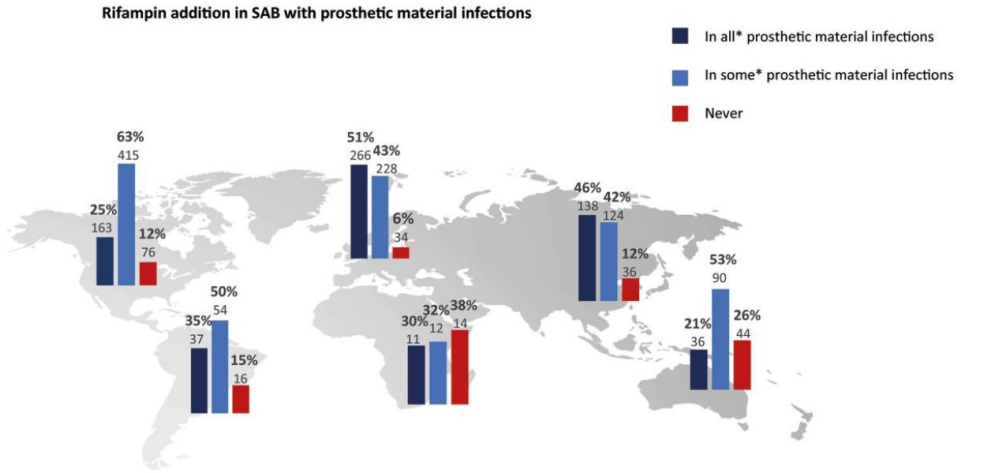
North America: 701 (35%)
Europe: 573 (28%)
Asia: 409 (20%)
Oceania: 182 (9%)
South America: 124 (6%)
Africa: 42 (2%)











Bactériémie – Avis infectiologue ?

Contents lists available at ScienceDirect

Clinical Microbiology and Infection

journal homepage: www.clinicalmicrobiologyandinfection.com

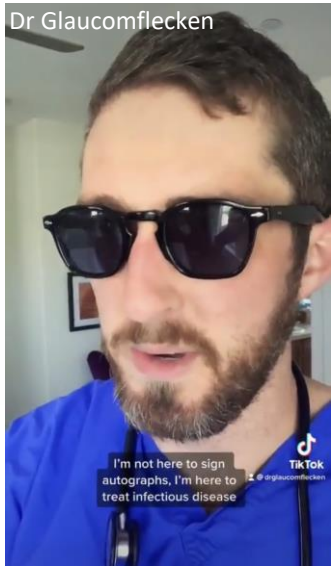
Original article

The association of infectious diseases consultation and 30-day mortality rates among veterans with enterococcal bacteraemia: a propensity score–matched retrospective cohort study

Joseph Tholany [1,2], Hiroyuki Suzuki [1,2,*], Daniel J. Livorsi [1,2], Eli N. Perencevich [1,2], Michihiko Goto [1,2]

- 121 Hôpitaux vétérans
- 12 666 bactériémies à entérocoques

Dont 8400 avec avis infectio



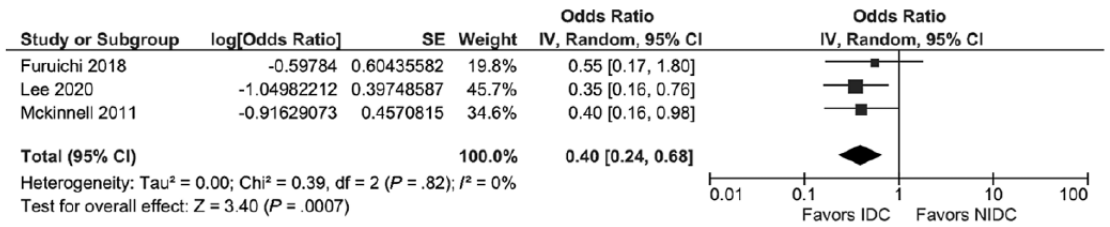
	Propensity score–matched cohort		
	ID consultation ($n = 2972$)	No ID consultation ($n = 2972$)	p
Day to IDC (median, IQR)	2 (1–4)	N/A	N/A
Care processes			
Echocardiography, appropriate antibiotics, and documentation of blood culture clearance	1106 (37.2)	480 (16.2)	<0.001
Echocardiography and documentation of blood culture clearance	244 (7.1)	146 (10.6)	
Echocardiography and appropriate antibiotics	258 (8.7)	211 (7.1)	
Appropriate antibiotics and documentation of blood culture clearance	704 (23.7)	715 (24.1)	
Echocardiography only	66 (2.2)	76 (2.6)	
Documentation of blood culture clearance only	212 (7.1)	314 (10.6)	
Appropriate antibiotic only	272 (9.2)	598 (20.1)	
None	110 (3.7)	432 (14.5)	
Documentation of blood culture clearance within 4 d from bacteraemia onset	2249 (75.7)	1645 (55.4)	<0.001
Outcomes			
30-d mortality	546 (18.4)	849 (28.6)	<0.001
Length of stay after positive blood culture (median, IQR)	10 (6–20)	7 (3–15)	<0.001
Recurrence of bacteraemia within 90 d among patients who survived to 90 d after the onset of bacteraemia	75/2426 (3.1)	54/2123 (2.5)	0.28

Open Forum Infectious Diseases

MAJOR ARTICLE

Impact of Infectious Diseases Consultation on the Outcome of Patients With Enterococcal Bacteremia: A Systematic Literature Review and Meta-analysis

Joseph Tholany,[1] Takaaki Kobayashi,[1] Alexandre R. Marra,[1,2,3] Marin L. Schweizer,[1,2] Riley J. Samuelson,[4] and Hiroyuki Suzuki[1,2]



Study or Subgroup	log[Odds Ratio]	SE	Weight	Odds Ratio IV, Random, 95% CI
Bartoletti 2019	-0.8675	0.19864	12.5%	0.42 [0.28, 0.62]
Britt 2017	-0.15082	0.02374756	16.1%	0.86 [0.82, 0.90]
Cattaneo 2021	-0.07126302	0.3721533	7.9%	0.93 [0.45, 1.93]
Erlandson 2008	1.08518927	0.5441637	5.0%	2.96 [1.02, 8.60]
Furuichi 2018	-0.59784	0.60435582	4.3%	0.55 [0.17, 1.80]
Jindai 2014	0.0380274	0.37844411	7.8%	1.04 [0.49, 2.18]
Jumah 2018	-0.38777	0.698817	3.5%	0.68 [0.17, 2.67]
Lee 2020	-1.04982212	0.39748587	7.4%	0.35 [0.16, 0.76]
MacVane 2016	0.59516677	0.59553074	4.4%	1.81 [0.56, 5.83]
Malone 1986	0.74193734	0.56061191	4.8%	2.10 [0.70, 6.30]
Mckinnell 2011	-0.91629073	0.4570815	6.3%	0.40 [0.16, 0.98]
Mercuro 2020	-1.20397	0.83114708	2.6%	0.30 [0.06, 1.53]
Nakakura 2019	-0.55961579	0.68138514	3.6%	0.57 [0.15, 2.17]
Narayanan 2019	0.53150583	1.11095617	1.6%	1.70 [0.19, 15.01]
Valentin 2021	0.96141117	0.71157209	3.4%	2.62 [0.65, 10.55]
Zasowski 2016	-0.0822381	0.34402427	8.6%	0.92 [0.47, 1.81]
Total (95% CI)			**100.0%**	**0.81 [0.61, 1.08]**

Heterogeneity: Tau² = 0.13; Chi² = 35.82, df = 15 (P = .002); I² = 58%
Test for overall effect: Z = 1.44 (P = .15)

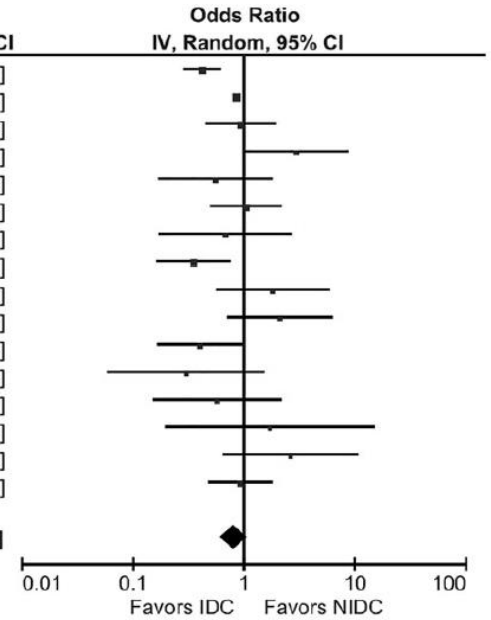
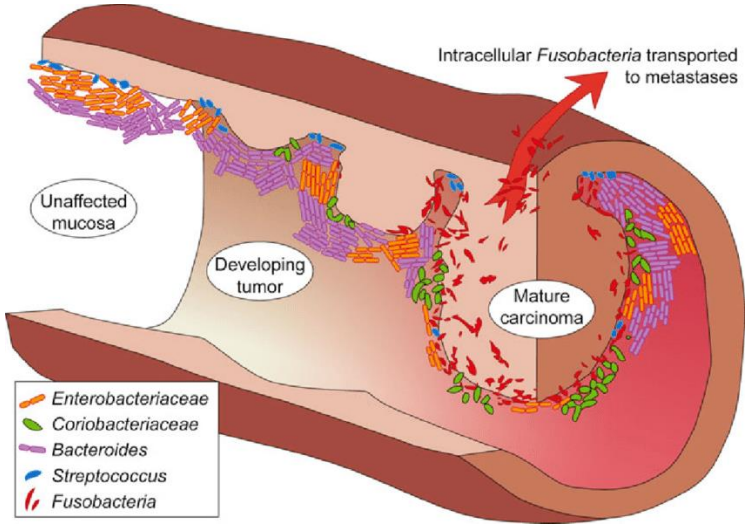


Figure 3. Studies using multivariate analysis with results available. Abbreviations: IDC, infectious disease consultation; IV, inverse variance.

Bactériémie – Risque cancer colorectal



- Queensland en Australie 2000-2019
- Exclusion 1794 CCR connus
- 1030 patients bactériémie + CCR
- 83 724 patients bactériémie sans CCR

THE AMERICAN JOURNAL of MEDICINE®

Bloodstream Infection and Colorectal Cancer Risk in Queensland Australia, 2000-2019

Kevin B. Laupland, MD, PhD,[a,b] Felicity Edwards, BHlthSci,[b] Luis Furuya-Kanamori, MBBS, PhD,[c] David L. Paterson, MD, PhD,[c,d] Patrick N.A. Harris, MBBS, PhD[c,e]

[a]*Department of Intensive Care Services, Royal Brisbane and Women's Hospital, Queensland, Australia;* [b]*Queensland University of Technology (QUT), Brisbane, Australia;* [c]*Faculty of Medicine, UQ Center for Clinical Research, University of Queensland, Brisbane, Australia;* [d]*Infectious Diseases Unit, Royal Brisbane and Women's Hospital, Queensland, Australia;* [e]*Department of Microbiology, Pathology Queensland, Brisbane, Australia.*

Table 2 Relative Risk for Colorectal Carcinoma Among Patients With and Without Selected Etiologies of Bloodstream Infection

Factor	Number of CRC With Organism	Number CRC Without Organism	Relative Risk	*P* Value
Gemella morbillorum	9/114 (7.9%)	1021/84,622 (1.2%)	6.5 (2.98-12.47)	< .0001
Clostridium species	63/894 (7.0%)	967/83,842 (1.2%)	6.1 (4.66-7.89)	< .0001
C. septicum	31/105 (30.0%)	999/84,631 (1.2%)	25.0 (16.9-35.7)	< .001
C. cadaveris	2/12 (16.8%)	1028/84,724 (1.2%)	13.7 (1.66-49.75)	.01
C. paraputrificum	4/29 (13.8%)	1026/84,707 (1.2%)	11.4 (3.10-29.25)	.0005
C. perfringens	6/337 (1.8%)	1024/84,399 (1.2%)	1.5 (0.54-3.21)	.4
Bacteroides species	106/2004 (5.3%)	924/82,732 (1.1%)	4.7 (3.84-5.80)	< .0001
B. ovatus	3/21 (14.2%)	1027/84,715 (1.2%)	11.8 (2.43-34.53)	.0024
B. uniformis	5/58 (8.6%)	1025/84,678 (1.2%)	7.1 (2.31-16.67)	.0009
B. thetaiotaomicron	9/186 (4.8%)	1021/84,550 (1.2%)	4.0 (1.83-7.64)	.0007
B. fragilis	55/1101 (5.0%)	975/83,635 (1.2%)	4.3 (3.20-5.62)	< .0001
Streptococcus bovis group	21/397 (5.3%)	1009/84,339 (1.2%)	4.4 (2.72-6.80)	< .0001
S. bovis group*	14/243 (5.8%)	600/53,203 (1.1%)	5.1 (2.78-8.64)	< .0001
S. gallolyticus subspecies *gallolyticus**	6/116 (5.2%)	608/53,330 (1.1%)	4.5 (1.66-9.93)	.003
S. gallolyticus subspecies *pasteuranis**	4/75 (5.3%)	610/53,371 (1.1%)	4.7 (1.27-12.01)	.014
S. infantarius subspecies *coli**	4/33 (12.1%)	610/53,413 (1.1%)	10.6 (2.88-27.31)	.0007
S. infantarius subspecies *infantarius**	0/9	614/53,437 (1.1%)	0 (0-35.78)	.9
Fusobacterium species	6/262 (2.3%)	1024/84,474 (1.2%)	1.9 (0.69-4.13)	.1
Streptococcus anginosus group	31/1395 (2.2%)	999/83,341 (1.2%)	1.9 (1.25-2.65)	.0019
Enterococcus species	62/3751 (1.7%)	968/80,985 (1.2%)	1.4 (1.05-1.79)	.017
Gram-positive anaerobic cocci	8/514 (1.6%)	1022/84,222 (1.2%)	1.3 (0.55-2.54)	.5
Granulicatella species	2/191 (1.0%)	1028/84,545 (1.2%)	0.9 (0.10-3.12)	.9
Enterobacterales	457/39,265 (1.2%)	573/45,471 (1.3%)	0.9 (0.81-1.05)	.2
Escherichia coli	291/24,734 (1.2%)	739/60,002 (1.2%)	1.0 (0.83-1.10)	.5
Staphylococcus aureus	94/15,200 (0.6%)	936/69,536 (1.3%)	0.5 (0.37-0.57)	< .0001
Streptococcus pneumoniae	11/3135 (0.4%)	1019/81,601 (1.2%)	0.3 (0.14-0.50)	< .0001

CRC = colorectal cancer.
*Analysis of *Streptococcus bovis* group individual species limited to 2010-2019 due to incomplete species identification during 2000-2009.

Endocardite – Screening des bactériémies à risque

Contents lists available at ScienceDirect

Clinical Microbiology and Infection

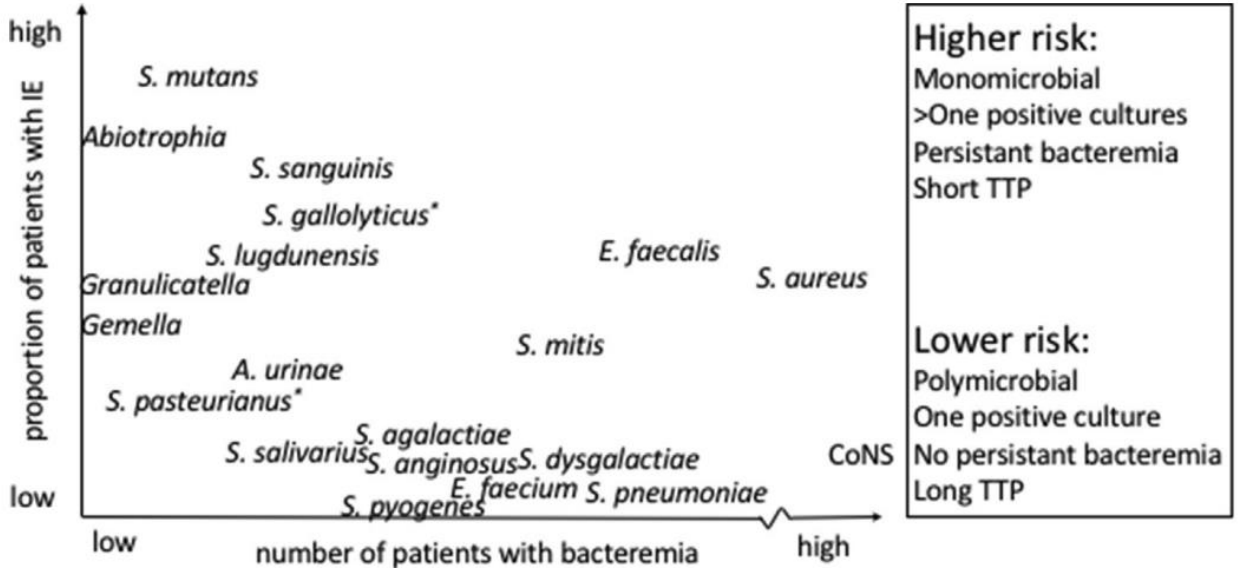
journal homepage: www.clinicalmicrobiologyandinfection.com

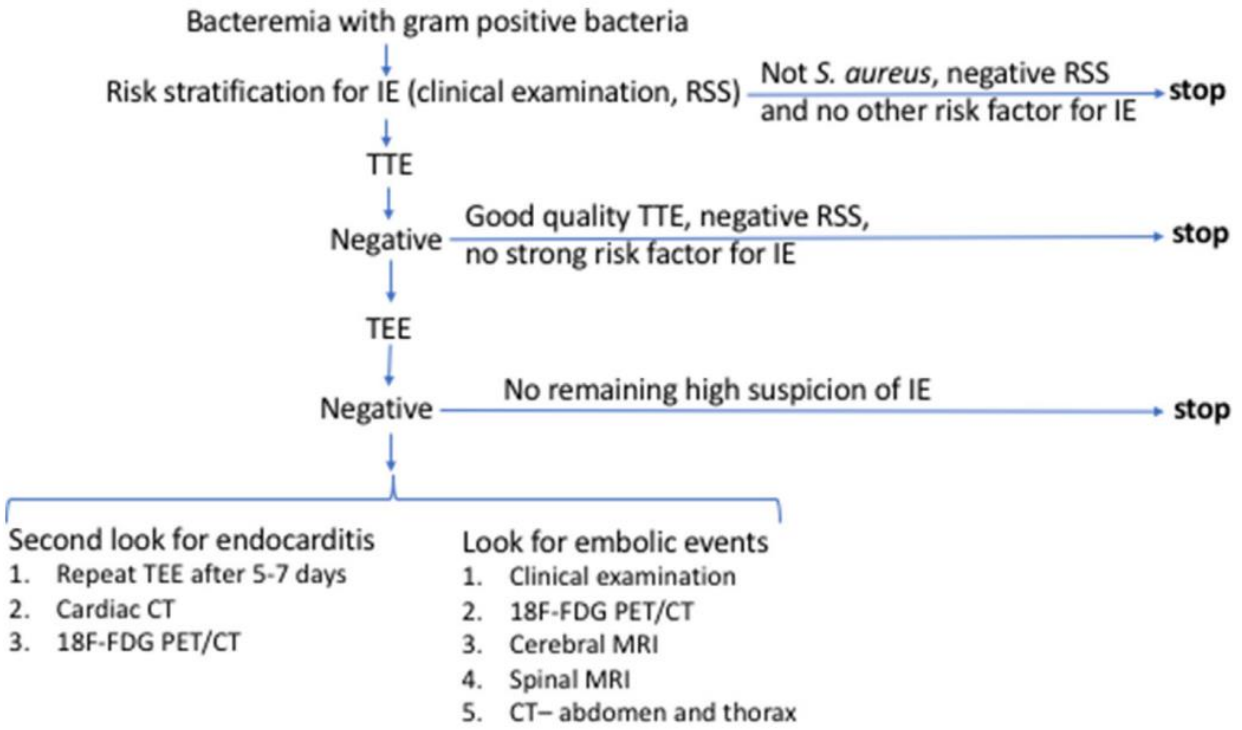
Review

Bacteraemia with gram-positive bacteria—when and how do I need to look for endocarditis?

Magnus Rasmussen [1, 2, *], Patrik Gilje [3], Erika Fagman [4, 5], Andreas Berge [6, 7]

Risk Stratification Systems (scores prédictifs d'endocardite) :
- *S. aureus* : PREDICT, VIRSTA, POSITIVE
- Streptocoques : HANDOC
- *E. faecalis* : NOVA, DENOVA





Endocardite – Critères diagnostiques

ESC European Society of Cardiology
European Heart Journal (2023) 44, 3948–4042
https://doi.org/10.1093/eurheartj/ehad193
ESC GUIDELINES

2023 ESC Guidelines for the management of endocarditis

Developed by the task force on the management of endocarditis of the European Society of Cardiology (ESC)

Endorsed by the European Association for Cardio-Thoracic Surgery (EACTS) and the European Association of Nuclear Medicine (EANM)

Authors/Task Force Members: Victoria Delgado *†, (Chairperson) (Spain),

Table 10 Definitions of the 2023 European Society of Cardiology modified diagnostic criteria of infective endocarditis

Major criteria
(i) Blood cultures positive for IE
(a) Typical microorganisms consistent with IE from two separate blood cultures: Oral streptococci, *Streptococcus gallolyticus* (formerly *S. bovis*), HACEK group, *S. aureus*, *E. faecalis*
(b) Microorganisms consistent with IE from continuously positive blood cultures: • ≥2 positive blood cultures of blood samples drawn >12 h apart. • All of 3 or a majority of ≥4 separate cultures of blood (with first and last samples drawn ≥1 h apart).
(c) Single positive blood culture for *C. burnetii* or phase I IgG antibody titre >1:800.
(ii) Imaging positive for IE:
Valvular, perivalvular/periprosthetic and foreign material anatomic and metabolic lesions characteristic of IE detected by any of the following imaging techniques: • Echocardiography (TTE and TOE). • Cardiac CT. • [18F]-FDG-PET/CT(A). • WBC SPECT/CT.
Minor criteria
(i) Predisposing conditions (i.e. predisposing heart condition at high or intermediate risk of IE or PWIDs)[a]
(ii) Fever defined as temperature >38°C
(iii) Embolic vascular dissemination (including those asymptomatic detected by imaging only): • Major systemic and pulmonary emboli/infarcts and abscesses. • Haematogenous osteoarticular septic complications (i.e. spondylodiscitis). • Mycotic aneurysms. • Intracranial ischaemic/haemorrhagic lesions. • Conjunctival haemorrhages. • Janeway's lesions.
(IV) Immunological phenomena: • Glomerulonephritis. • Osler nodes and Roth spots. • Rheumatoid factor.
(V) Microbiological evidence: • Positive blood culture but does not meet a major criterion as noted above. • Serological evidence of active infection with organism consistent with IE.

Clinical Infectious Diseases
Volume 77, Issue 4
15 August 2023

JOURNAL ARTICLE

The 2023 Duke-International Society for Cardiovascular Infectious Diseases Criteria for Infective Endocarditis: Updating the Modified Duke Criteria

Get access

Vance G Fowler, Jr, David T Durack, Christine Selton-Suty, Eugene Athan, Arnold S Bayer, Anna Lisa Chamis, Anders Dahl, Louis DiBernardo, Emanuele Durante-Mangoni, Xavier Duval ... Show more

1-MIN ID CONSULT

Major	
Microbiologic	(1) Positive blood cultures i. **Microorganisms that commonly cause IE isolated from two or more separate blood culture sets** or ii. Microorganisms that occasionally or rarely cause IE **isolated from three or more separate blood culture sets** (2) Positive laboratory tests i. **Positive PCR or other nucleic acid-based technique for *Coxiella burnetii, Bartonella species, or Tropheryma whipplei* from blood** or ii. *Coxiella burnetii* antiphase I IgG antibody titer > 1:800, or isolated from a single blood culture or iii. **Indirect immunofluorescence assays (IFA) for detection of IgM and IgG antibodies to *Bartonella henselae* or *Bartonella quintana* with IgG titer > 1:800**
Imaging	(1) Echocardiography and **Cardiac Computed Tomography** Imaging I. Echocardiography and/or **Cardiac CT** showing vegetation, valvular/leaflet perforation, valvular/leaflet aneurysm, abscess, pseudoaneurysm, or intracardiac fistula or II. Significant new valvular regurgitation on echocardiography as compared to previous imaging. Worsening or changing of pre-existing regurgitation is not sufficient. or III. New partial dehiscence of prosthetic valve as compared to previous imaging (2) **[18F]FDG PET/CT Imaging** **Abnormal metabolic activity involving a native or prosthetic valve, ascending aortic graft (with concomitant evidence of valve involvement), intracardiac device leads or other prosthetic material**
Surgical	**Evidence of IE documented by direct inspection during heart surgery neither Major Imaging Criteria nor subsequent histologic or microbiologic confirmation**

Minor	
Predisposition	**- Previous history of IE** - Prosthetic valve - Previous valve repair - Congenital heart disease - More than mild regurgitation or stenosis of any etiology - **Endovascular CIED** - Hypertrophic obstructive cardiomyopathy - Injection drug use
Fever	Documented temperature greater than 38.0 degrees Centigrade (100.4 degrees Fahrenheit)
Vascular Phenomena	Clinical or radiological evidence of arterial emboli, septic pulmonary infarcts, **cerebral or splenic abscess**, mycotic aneurysm, intracranial hemorrhage, conjunctival hemorrhages, Janeway lesions, purulent purpura
Immunologic Phenomena	Positive rheumatoid factor, Osler's nodes, Roth's spots, or immune complex-mediated glomerulonephritis
Microbiologic Evidence, Falling Short of a Major Criterion	1) Positive blood cultures for a microorganism consistent with IE but not meeting the requirements for Major Criterion **2) Positive culture, PCR or other nucleic acid based test (amplicon or shotgun sequencing, in situ hybridization) for an organism consistent with IE from a sterile body site other than cardiac tissue, cardiac prosthesis, or embolus; or a single finding of a skin bacterium by PCR on a valve or wire without additional clinical or microbiological supporting evidence**
Imaging	**Abnormal metabolic activity as detected by [18F]FDG PET/CT within 3 months of implantation of prosthetic valve, ascending aortic graft (with concomitant evidence of valve involvement), intracardiac device leads or other prosthetic material**
Physical Examination	New valvular regurgitation identified on auscultation, if echocardiography is not available. Worsening or changing of pre-existing murmur not sufficient

Endocardite – Validation critères diagnostiques

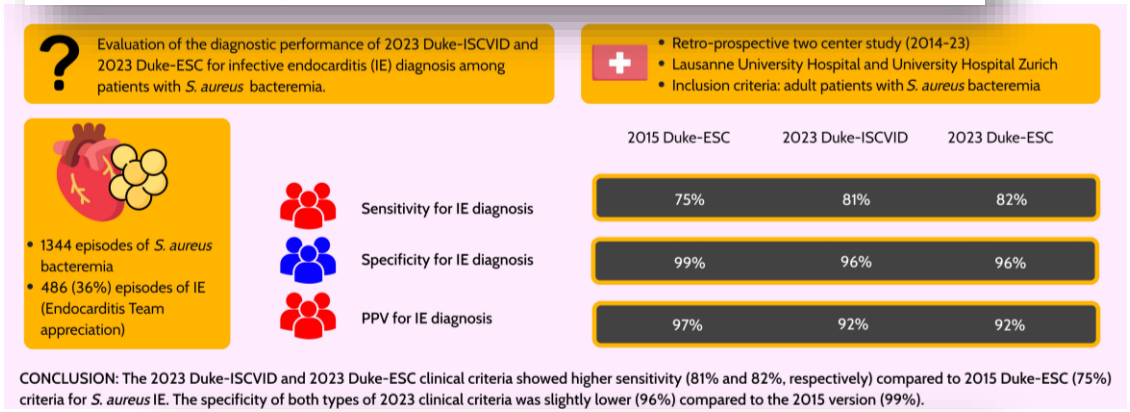
JOURNAL ARTICLE ACCEPTED MANUSCRIPT

Evaluation of the 2023 Duke-ISCVID and 2023 Duke-ESC clinical criteria for the diagnosis of infective endocarditis in a multicenter cohort of patients with *Staphylococcus aureus* bacteremia

Matthaios Papadimitriou-Olivgeris ✉, Pierre Monney, Michelle Frank, Georgios Tzimas, Piergiorgio Tozzi, Matthias Kirsch, Mathias Van Hemelrijck, Robert Bauernschmitt, Jana Epprecht, Benoit Guery ... Show more

Clinical Infectious Diseases, ciae003, https://doi.org/10.1093/cid/ciae003

Published: 03 January 2024 **Article history ▾**



JOURNAL ARTICLE CORRECTED PROOF

Performance of the 2023 Duke-ISCVID Diagnostic Criteria for Infective Endocarditis in Relation to the Modified Duke Criteria and to Clinical Management—Reanalysis of Retrospective Bacteremia Cohorts

Helena Lindberg, Andreas Berge, Martin Jovanovic-Stjernqvist, Malin Hagstrand Aldman, David Krus, Jonas Öberg, Fredrik Kahn, Anna Bläckberg, Torgny Sunnerhagen, Magnus Rasmussen ✉ Author Notes

Clinical Infectious Diseases, ciae040, https://doi.org/10.1093/cid/ciae040

Published: 08 February 2024 **Article history ▾**

JOURNAL ARTICLE CORRECTED PROOF

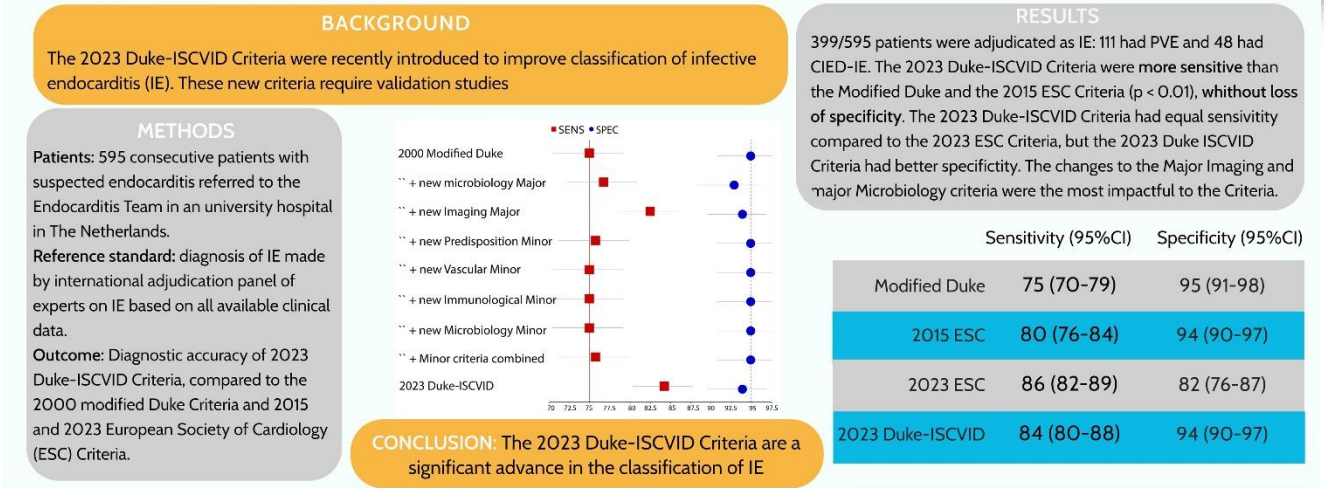
External Validation of the 2023 Duke–International Society for Cardiovascular Infectious Diseases Diagnostic Criteria for Infective Endocarditis

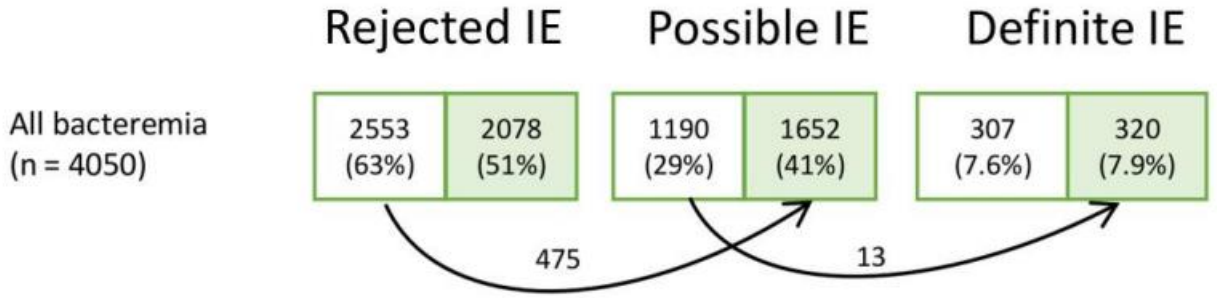
Thomas W van der Vaart ✉, Patrick M M Bossuyt, David T Durack, Larry M Baddour, Arnold S Bayer, Emanuele Durante-Mangoni, Thomas L Holland, Adolf W Karchmer, Jose M Miro, Philippe Moreillon ... Show more

Author Notes

Clinical Infectious Diseases, ciae033, https://doi.org/10.1093/cid/ciae033

Published: 08 February 2024 **Article history ▾**





Endocardite – FISH Seq

REVIEW

INFECTION

Blood culture-negative infective endocarditis: are we looking hard enough?

Frazer Kirk[1,2] · Natasha Marcella Vaselli[1,3,4]

BCNIE :
- 2,5%-31% endocardites
- Mortalité augmentée
- Liée à antibio préalable ++

ESC European Society of Cardiology
Europace (2023) 25, 578–585 https://doi.org/10.1093/europace/euac228

EP Europace
CLINICAL RESEARCH

Fluorescence *in situ* hybridization and polymerase chain reaction to detect infections of cardiac implantable electronic devices

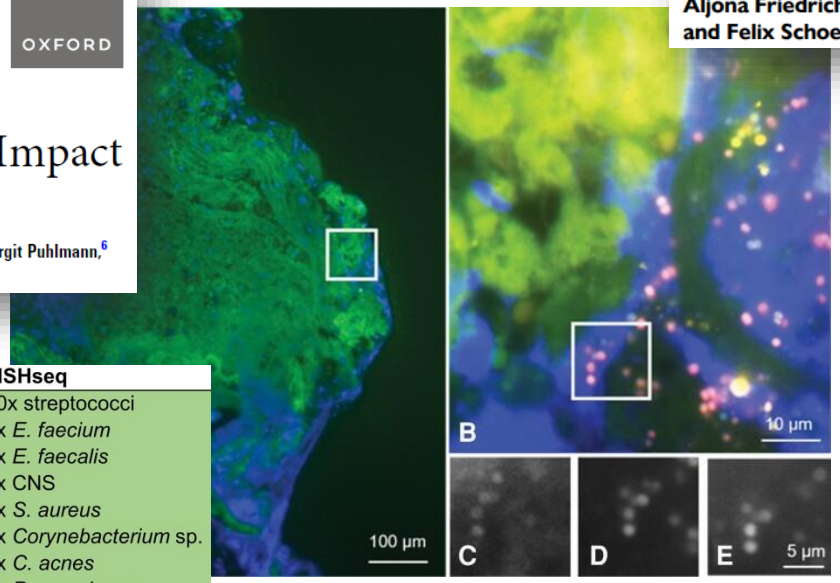
Isabell Anna Just[1,2*], Frank Barthel[1], Annette Moter[3,4,5], Judith Kikhney[3,4], Aljona Friedrich[1], Alexa Wloch[1], Volkmar Falk[1,2,6,7], Christoph Starck[1,2†], and Felix Schoenrath[1,2,6†]

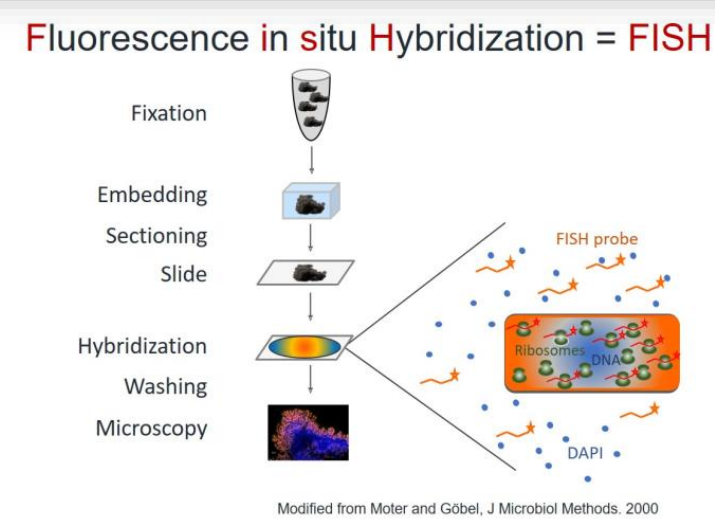
Clinical Infectious Diseases
MAJOR ARTICLE

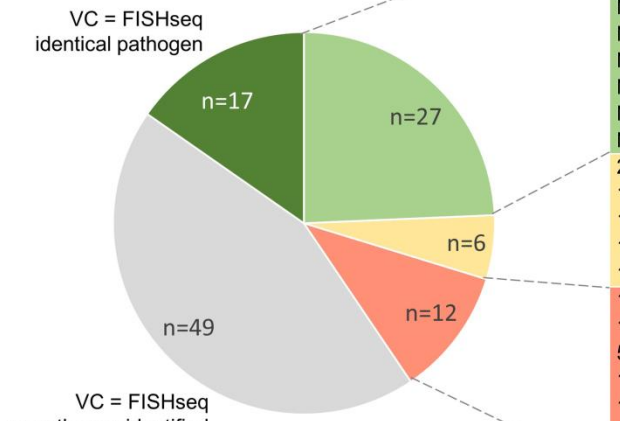
IDSA Infectious Diseases Society of America
hivma hiv medicine association
OXFORD

New Perspectives for Prosthetic Valve Endocarditis: Impact of Molecular Imaging by FISHseq Diagnostics

Maria M. Hajduczenia,[1,2] Frank R. Klefisch,[3] Alexander G. M. Hopf,[1] Herko Grubitzsch,[4,a] Miriam S. Stegemann,[5,a] Frieder Pfäfflin,[5,a] Birgit Puhlmann,[6] Michele Ocken,[6] Lucie Kretzler,[7,a] Dinah von Schöning,[8,a] Volkmar Falk,[4] Annette Moter,[1,9,10,a] and Judith Kikhney[1,9,a,]



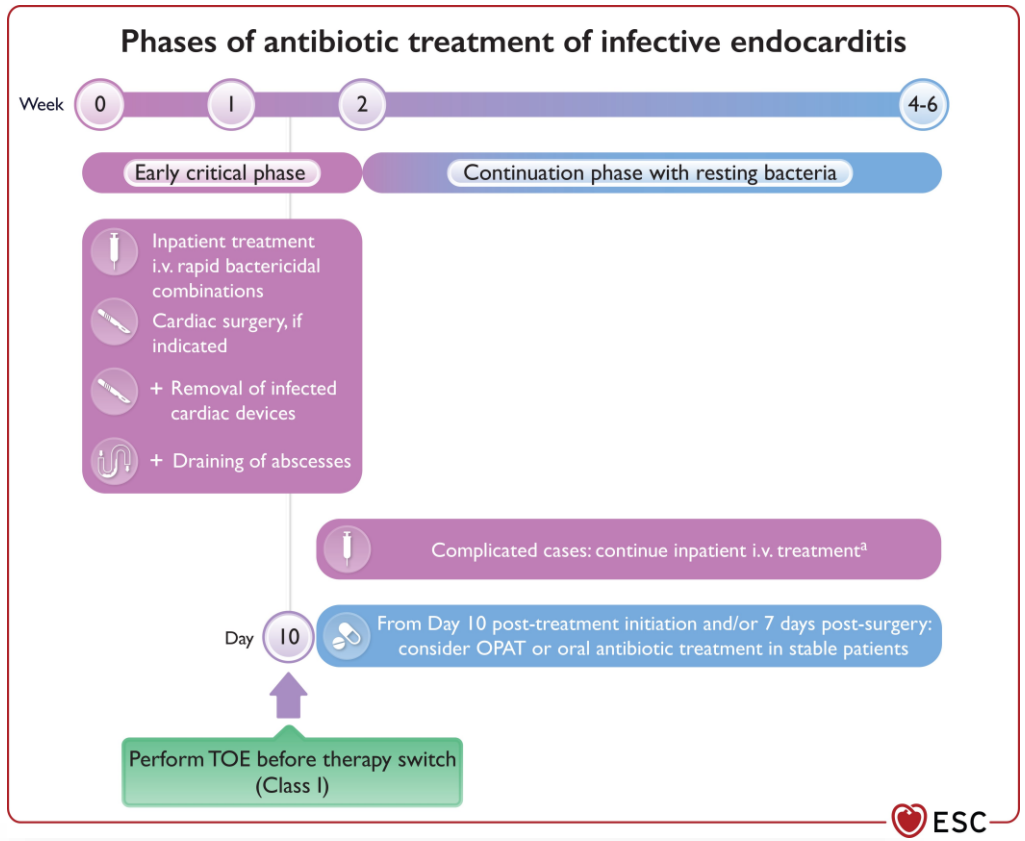




VC	FISHseq
None	10x streptococci
None	1x *E. faecium*
None	2x *E. faecalis*
None	5x CNS
None	4x *S. aureus*
None	1x *Corynebacterium* sp.
None	2x *C. acnes*
None	1x *P. aeruginosa*
None	1x *T. whipplei*
2x CNS	2x *E. faecalis*
1x *C. acnes*	1x streptococci
1x *E. faecalis* + streptococci	1x *E. faecalis*
1x *S. aureus* + *C. albicans*	1x *S. aureus*
1x CNS + *E. faecium* + *E. faecalis*	1x CNS
1x *E. faecium*	None
1x *E. faecalis*	None
5x CNS	None
1x *S. aureus*	None
1x *M. luteus*	None
2x *C. acnes*	None
1x *S. paucimobilis*	None

Intérêt FISHseq :
- Identification si culture négative
- Indentification si infection polymicrobienne
- Différencie contamination et infection
- Organisation (planctonique ou biofilm)

Endocardite – OPAT ?



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ESC GUIDELINES

2023 ESC Guidelines for the management of endocarditis

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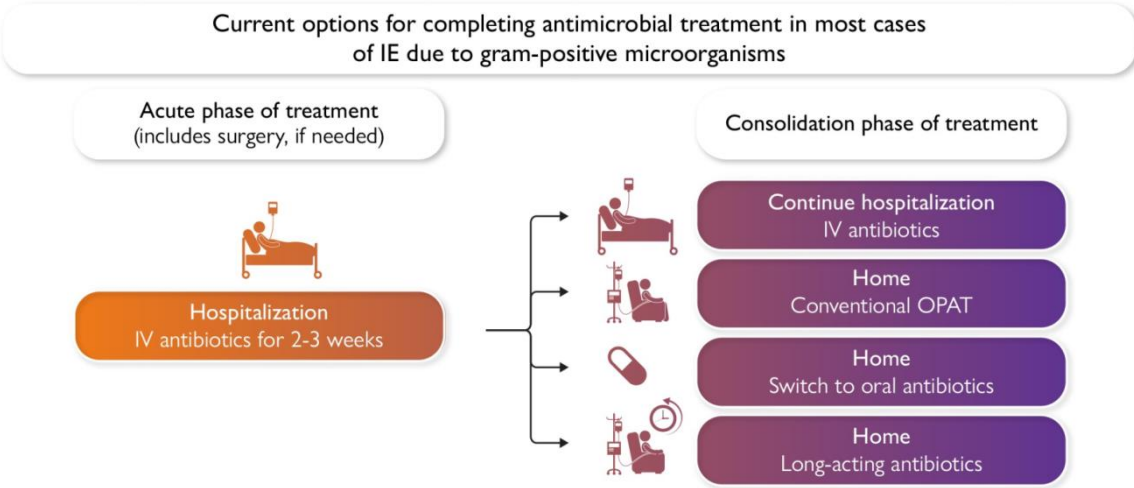
Endorsed by the European Association for Cardio-Thoracic Surgery (EACTS) and the European Association of Nuclear Medicine (EANM)

Authors/Task Force Members: Victoria Delgado *†, (Chairperson) (Spain),

Recommendations	Class[a]	Level[b]
Outpatient parenteral or oral antibiotic treatment should be considered in patients with left-sided IE caused by *Streptococcus* spp., *E. faecalis*, *S. aureus*, or CoNS who were receiving appropriate i.v. antibiotic treatment for at least 10 days (or at least 7 days after cardiac surgery), are clinically stable, and who do not show signs of abscess formation or valve abnormalities requiring surgery on TOE.[43,401]	IIa	A
Outpatient parenteral antibiotic treatment is not recommended in patients with IE caused by highly difficult-to-treat microorganisms,[c] liver cirrhosis (Child-Pugh B or C), severe cerebral nervous system emboli, untreated large extracardiac abscesses, heart valve complications, or other severe conditions requiring surgery, severe post-surgical complications, and PWID-related IE.	III	C



JOURNAL ARTICLE

A change in the paradigm of antibiotic management in infective endocarditis: are we ready?

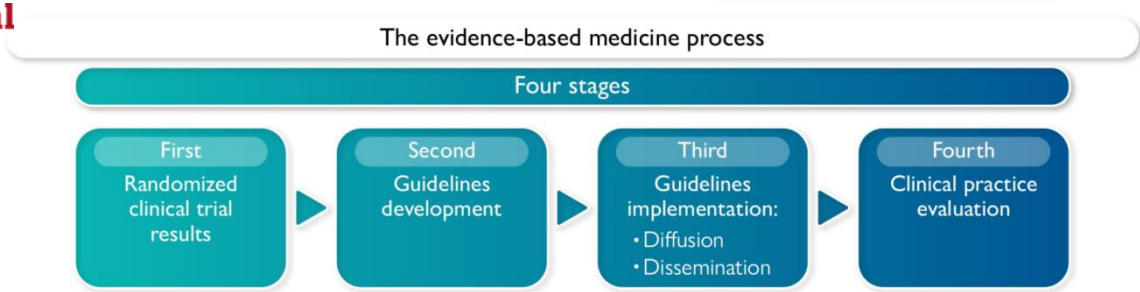
Nuria Fernández-Hidalgo ✉, Ignacio Ferreira-González Author Notes

European Heart Journal, Volume 44, Issue 48, 21 December 2023, Pages 5107–5109, https://doi.org/10.1093/eurheartj/ehad529

Published: 31 October 2023

European Heart Journal

ESC European Society of Cardiology



Endocardite – Aspiration végétation

ESC European Society of Cardiology
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ESC GUIDELINES

2023 ESC Guidelines for the management of endocarditis

Developed by the task force on the management of endocarditis of the European Society of Cardiology (ESC)

Endorsed by the European Association for Cardio-Thoracic Surgery (EACTS) and the European Association of Nuclear Medicine (EANM)

Recommendations	Class[a]	Level[b]
Surgery is recommended in patients with right-sided IE who are receiving appropriate antibiotic therapy for the following scenarios:		
Right ventricular dysfunction secondary to acute severe tricuspid regurgitation non-responsive to diuretics.[479]	I	B
Persistent vegetation with respiratory insufficiency requiring ventilatory support after recurrent pulmonary emboli.[479,755]	I	B
Large residual tricuspid vegetations (>20 mm) after recurrent septic pulmonary emboli.[145,471]	I	C
Patients with simultaneous involvement of left-heart structures.[749]	I	C
Tricuspid valve repair should be considered instead of valve replacement, when possible.[479]	IIa	B
Surgery should be considered in patients with right-sided IE who are receiving appropriate antibiotic therapy and present persistent bacteraemia/sepsis after at least 1 week of appropriate antibiotic therapy.[436,755]	IIa	C
Prophylactic placement of an epicardial pacing lead should be considered at the time of tricuspid valve surgical procedures.[733]	IIa	C
Debulking of right intra-atrial septic masses by aspiration may be considered in selected patients who are high risk for surgery.[753]	IIb	C

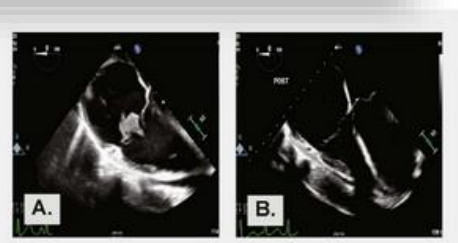
Contents lists available at ScienceDirect
Clinical Microbiology and Infection
journal homepage: www.clinicalmicrobiologyandinfection.com

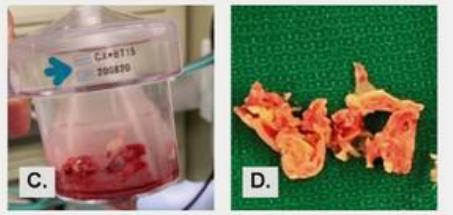
Systematic review

Scoping review of percutaneous mechanical aspiration for valvular and cardiac implantable electronic device infective endocarditis

Ahmad Mourad [1], Molly Hillenbrand [1], Lesley A. Skalla [2], Thomas L. Holland [1], Brittany A. Zwischenberger [3], Adam R. Williams [3], Nicholas A. Turner [1,*]

- 51 études, 294 patients
- 50% CIED, 39% PWID
- Peu de complications, mortalité 6,5%





Endocardite – Impact retrait PM

Recommendation Table 20 — Recommendations for cardiovascular implanted electronic device-related infective endocarditis

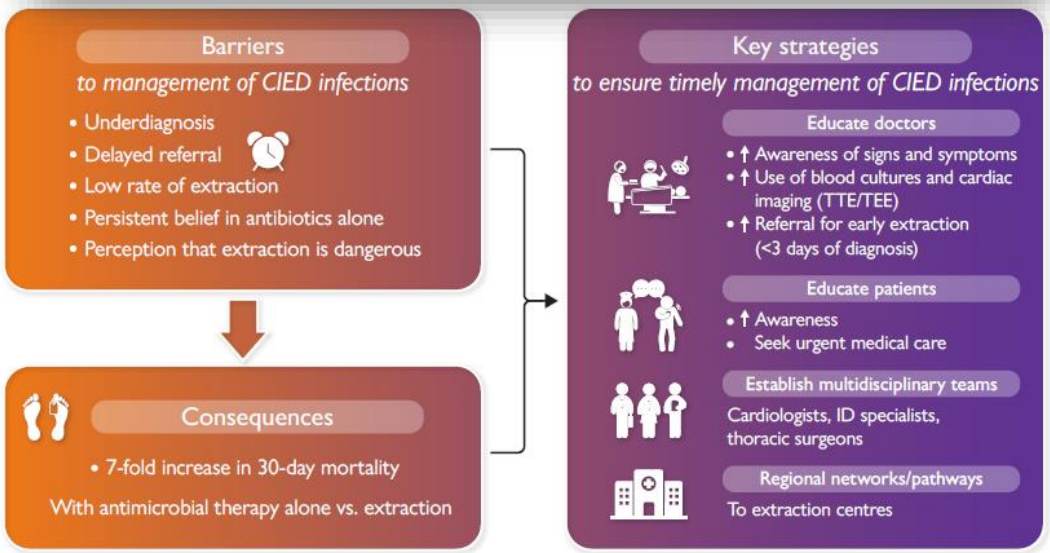
Recommendations	Class[a]	Level[b]
Complete system extraction without delay is recommended in patients with definite CIED-related IE under initial empirical antibiotic therapy.[698,699]	I	B
Complete CIED extraction should be considered in case of valvular IE, even without definite lead involvement, taking into account the identified pathogen and requirement for valve surgery.	IIa	C

ESC European Society of Cardiology
European Heart Journal (2023) **00**, 1–4
https://doi.org/10.1093/eurheartj/ehad490

VIEWPOINT
Arrhythmias

Cardiac device infection: removing barriers to timely and adequate treatment

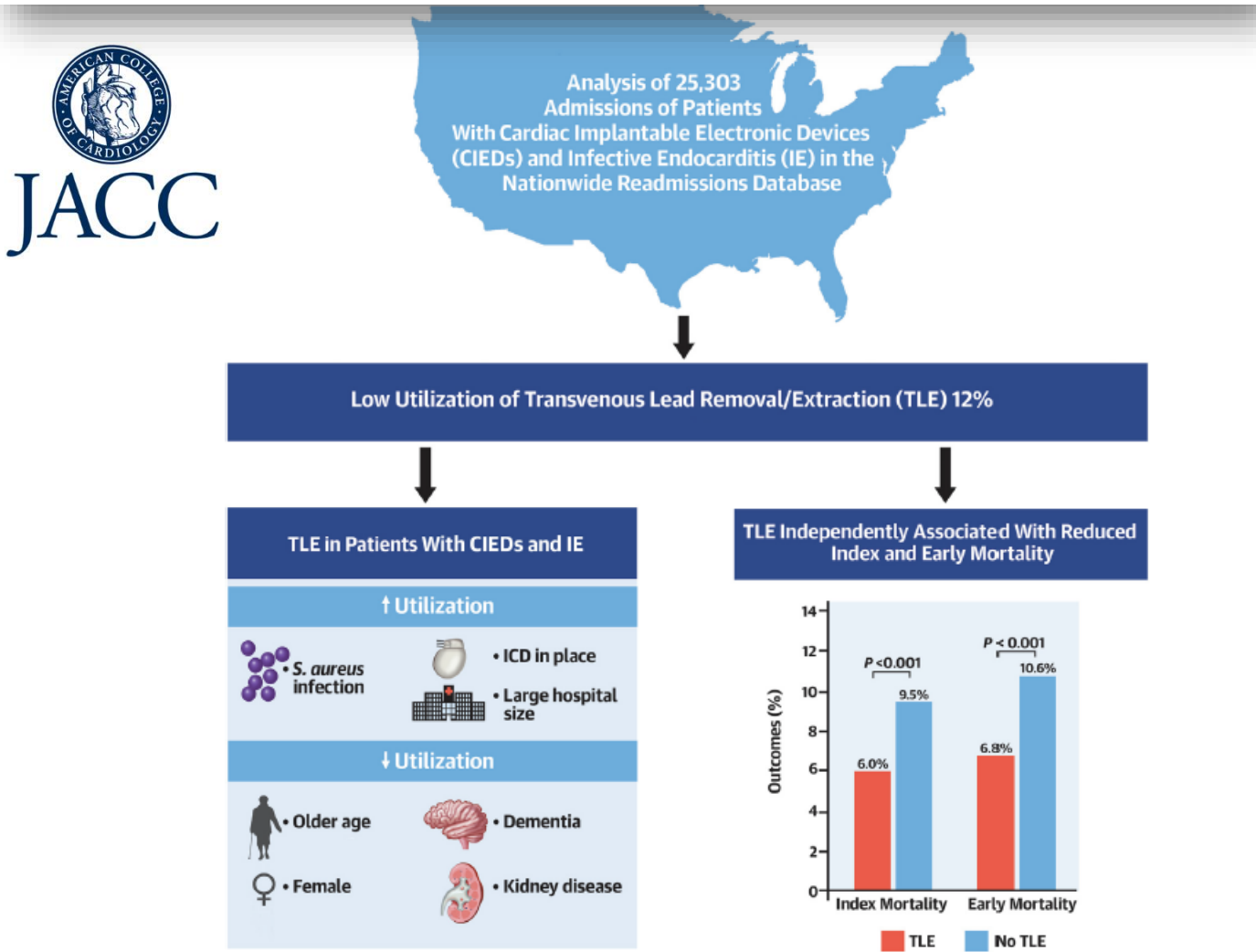
Dan Atar [1,2]*, **Angelo Auricchio** [3], and **Carina Blomström-Lundqvist** [4,5]



Low Utilization of Lead Extraction Among Patients With Infective Endocarditis and Implanted Cardiac Electronic Devices

Christopher T. Sciria, MD,[a,b] Edward V. Kogan, MD,[a] Ari G. Mandler, MD,[a] Ilhwan Yeo, MD, PhD,[a] Matthew S. Simon, MD,[c] Luke K. Kim, MD,[a] James E. Ip, MD,[a] Christopher F. Liu, MD,[a] Steven M. Markowitz, MD,[a] Bruce B. Lerman, MD,[a] George Thomas, MD,[a] Jim W. Cheung, MD[a]

JACC



Endocardite - Daptomycine seule ?

ESC European Society of Cardiology
European Heart Journal (2023) 44, 3948–4042
https://doi.org/10.1093/eurheartj/ehad193
ESC GUIDELINES

2023 ESC Guidelines for the management of endocarditis

Importantly, daptomycin needs to be administered in appropriate doses and combined with other antibiotics to avoid further resistance in patients with IE.[330,333] Therefore, daptomycin should be given at high doses (10 mg/kg), and most experts recommend its combination with beta-lactams[334] or fosfomycin[335]

In patients with NVE due to methicillin-susceptible staphylococci who are allergic to penicillin, ceftaroline or fosfomycin may be considered.[322–327]

Adult antibiotic dosage and route			
Daptomycin	10 mg/kg/day i.v. in 1 dose	IIb	C
Ceftaroline[f]	1800 mg/day i.v. in 3 doses		
OR	OR		
Fosfomycin[g]	8–12 g/day i.v. in 4 doses		

THE LANCET Infectious Diseases
CORRESPONDENCE | ONLINE FIRST

Endocarditis guidelines: call for an interdisciplinary approach

Till Koch † • Annette Hennigs † ✉ • Stefan Schmiedel • Show footnotes

Published: December 19, 2023 • DOI: https://doi.org/10.1016/S1473-3099(23)00748-X

Contents lists available at ScienceDirect
International Journal of Infectious Diseases
journal homepage: www.elsevier.com/locate/ijid
ELSEVIER
ISID INTERNATIONAL SOCIETY FOR INFECTIOUS DISEASES

Perspective

Getting to the heart of the matter—are two agents really better than one for the treatment of staphylococcal infective endocarditis?

James Donnelly[1,*], Helene McDermott[1], Sadhbh Gash[2], Ciara O'Connor[1], Karina O'Connell[1,3], Sinead O'Donnell[1,3], Binu Dinesh[1,3], Karen Burns[1,3], Fidelma Fitzpatrick[1,3]

AMERICAN SOCIETY FOR MICROBIOLOGY | Antimicrobial Agents and Chemotherapy®
CLINICAL THERAPEUTICS

Combinations of Daptomycin plus Ceftriaxone, but Not Ascending Daptomycin Dose-Regimens, Are Effective in Experimental Endocarditis Caused by *Streptococcus mitis-oralis* Strains: Target Tissue Clearances and Prevention of Emergence of Daptomycin-Resistance

Nagendra N. Mishra,[a,b] Wessam Abdelhady,[a] Ahmed M. Elsayed,[a] Christian Lapitan,[a] Richard A. Proctor,[c,d] Michael J. Rybak,[e,f] Jose M. Miro,[g,h] Arnold S. Bayer[a,b]

TABLE 3 Treatment of 351 *S. mitis-oralis* strain with ascending dosages of DAP in combination of CRO versus DAP and CRO alone in *in vivo* IE model[a]

Treatment	Vegetation [sterile] (/= Growth on DAP 2 mg/L plates)[b]	Kidney	Spleen
Untreated controls (7)	8.49 ± 0.65	5.27 ± 0.71	5.26 ± 0.36
DAP 4 mg/kg i.v. once daily × 4 d (7)	7.66 ± 0.87/6.14 ± 1.47[c]	4.16 ± 0.78[c]	4.20 ± 0.99[c]
DAP 6 mg/kg (7)	7.43 ± 1.06[d]/6.09 ± 0.93[d]	3.90 ± 0.67[d]	5.06 ± 1.22
DAP 8 mg/kg (6)	8.24 ± 0.82/6.50 ± 1.53[e]	4.71 ± 0.91	4.94 ± 0.80
DAP 10 mg/kg (6)	7.50 ± 1.08/5.53 ± 0.51[f]	4.18 ± 0.49[f]	4.13 ± 0.52[f]
DAP 12 mg/kg (7)	7.14 ± 1.04[g]/6.63 ± 1.04[g]	3.96 ± 0.59[g]	3.79 ± 0.53[g]
DAP 18 mg/kg (6)	8.12 ± 0.79/7.79 ± 0.83	3.94 ± 0.51	4.99 ± 0.30
CRO 40 mg/kg i.v. twice daily × 4 d (7)	7.81 ± 0.65	3.94 ± 0.51[h]	4.53 ± 1.04
DAP (4 mg/kg) + CRO (6)	5.51 ± 1.18[i,j,k] /0.62 ± 0.07[i,j,k]	1.93 ± 0.72[i,j,k]	2.49 ± 0.48[i,j,k]
DAP (8 mg/kg) + CRO (6)	0.62 ± 0.07[l,m,n] /0.62 ± 0.07 [6/6][l,m,n]	0.69 ± 0.08 [6/6][l,m,n]	0.76 ± 0.13 [6/6][l,m,n]

Endocardite – Diffusion amoxicilline endocarde

JOURNAL ARTICLE

Evaluating the heart valve tissue diffusion of amoxicillin in infective endocarditis: a pilot prospective observational non-comparative study

Get access >

Marie Dubert ✉, Benjamin Kably, Audrey Derobertmasure, Isabelle Podglajen, Laura Munte, Darless Clauss, Damien Blez, Pierre Dahdah, Eliane Billaud, David Lebeaux, Jean-Luc Mainardi

Journal of Antimicrobial Chemotherapy, Volume 78, Issue 12, December 2023, Pages 2915–2918, https://doi.org/10.1093/jac/dkad330

Published: 25 October 2023 **Article history** ▾

OXFORD ACADEMIC Journals Books

Journal of Antimicrobial Chemotherapy

- 17 patients
- 10,5 g/j; C-plasma 32 mg/l; C-tissu 19 mg/l (médianes)
- Diffusion médiane **47%**

JOURNAL ARTICLE

Diffusion of amoxicillin into heart valves from infective endocarditis patients FREE

Sébastien Lalanne ✉, François Guérin, Erwan Flécher, Vincent Cattoir, Nicolas Nesseler, Matthieu Revest, Marie-Clémence Verdier

Journal of Antimicrobial Chemotherapy, Volume 78, Issue 1, January 2023, Pages 232–237, https://doi.org/10.1093/jac/dkac379

Published: 15 November 2022 **Article history** ▾

- 20 patients
- 12 g/j; C-plasma 29 mg/l; C-tissu 23 mg/l (médianes)
- Diffusion médiane **62%**

Contents lists available at ScienceDirect

International Journal of Antimicrobial Agents

journal homepage: www.elsevier.com/locate/ijantimicag

Amoxicillin therapeutic drug monitoring for endocarditis: A comparative study (EI-STAB)

Marie Dorel[a], Robin Albert[b], Audrey Le Bot[a], Leila Caillault[c], Sébastien Lalanne[d,e], Pierre Tattevin[a,e,g], Marie-Clémence Verdier[d,e], Adrien Lemaignen[b,f], Matthieu Revest[a,e,g,*]

- 206 patients
- TDM pour 114 (55%)

Characteristic	Both groups (N= 206)	TDM + (n=114)	TDM - (n=92)	*P* Value[1]
Primary endpoint				
Average amoxicillin daily dose, g	10.6 ± 2.8	10.0 ± 3.3	11.3 ± 2.0	0.003
Secondary endpoint				
At least one dose change	87 (42)	76 (67)	11 (12)	< 0.001
Acute kidney injury	54 (26)	26 (23)	28 (30)	0.22
Crystalluria	9 (4)	2 (2)	7 (8)	0.09
Encephalopathy	12 (6)	7 (6)	5 (5)	0.83
Mortality				
In-hospital	17 (8)	7 (6)	10 (11)	0.22
One-year	39 (19)	16 (14)	23 (25)	0.046
Relapse	5 (2)	2 (2)	3 (3)	0.70

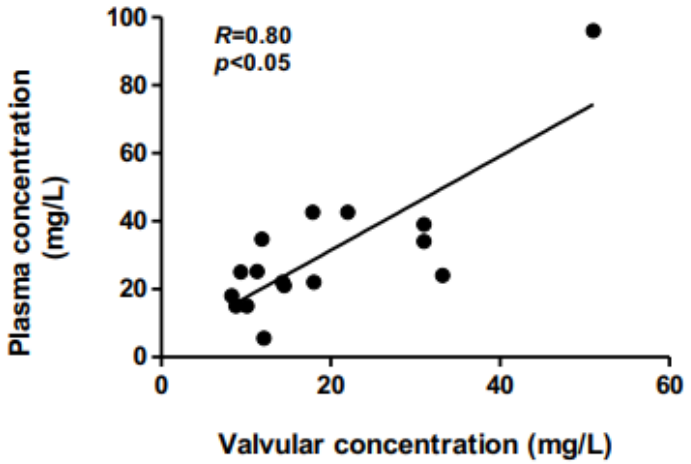


Figure 3. Scatter plot of amoxicillin concentrations in valvular tissue and in plasma ($n = 16$).

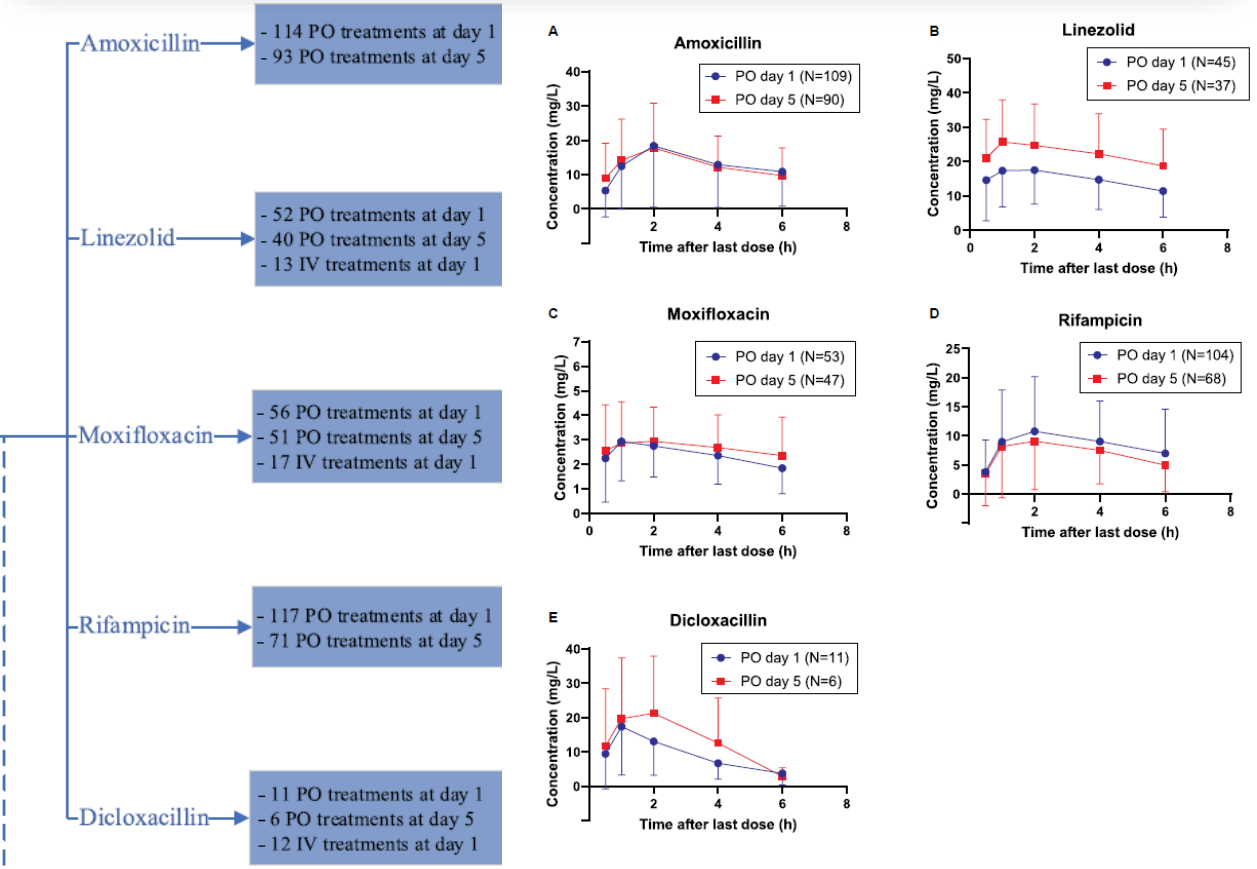
Endocardite – Pharmacologie POET

Clinical Infectious Diseases

MAJOR ARTICLE

Attainment of Target Antibiotic Levels by Oral Treatment of Left-Sided Infective Endocarditis: A POET Substudy

Magnus Bock,[1] Anna Marie Theut,[1] Johan G. C. van Hasselt,[2] Hengzhuang Wang,[1,3] Kurt Fuursted,[4] Niels Høiby,[1,3] Christian Johann Lerche,[1,5] Nikolaj Ihlemann,[6] Sabine Gill,[7] Ulrik Christiansen,[8] Hans Linde Nielsen,[9,10] Lars Lemming,[11] Hanne Elming,[12] Jonas A. Povlsen,[13] Niels Eske Bruun,[10,12,14] Dan Høfsten,[15] Emil L. Fosbøl,[15] Lars Køber,[14,15] Martin Schultz,[16] Mia M. Pries-Heje,[15] Jonas Henrik Kristensen,[17,18] Jens Jørgen Christensen,[14,19] Flemming S. Rosenvinge,[20,21] Christian Torp Pedersen,[22,23] Jannik Helweg-Larsen,[24] Niels Tønder,[22] Kasper Iversen,[14,18] Henning Bundgaard,[14,15] and Claus Moser[1,3]



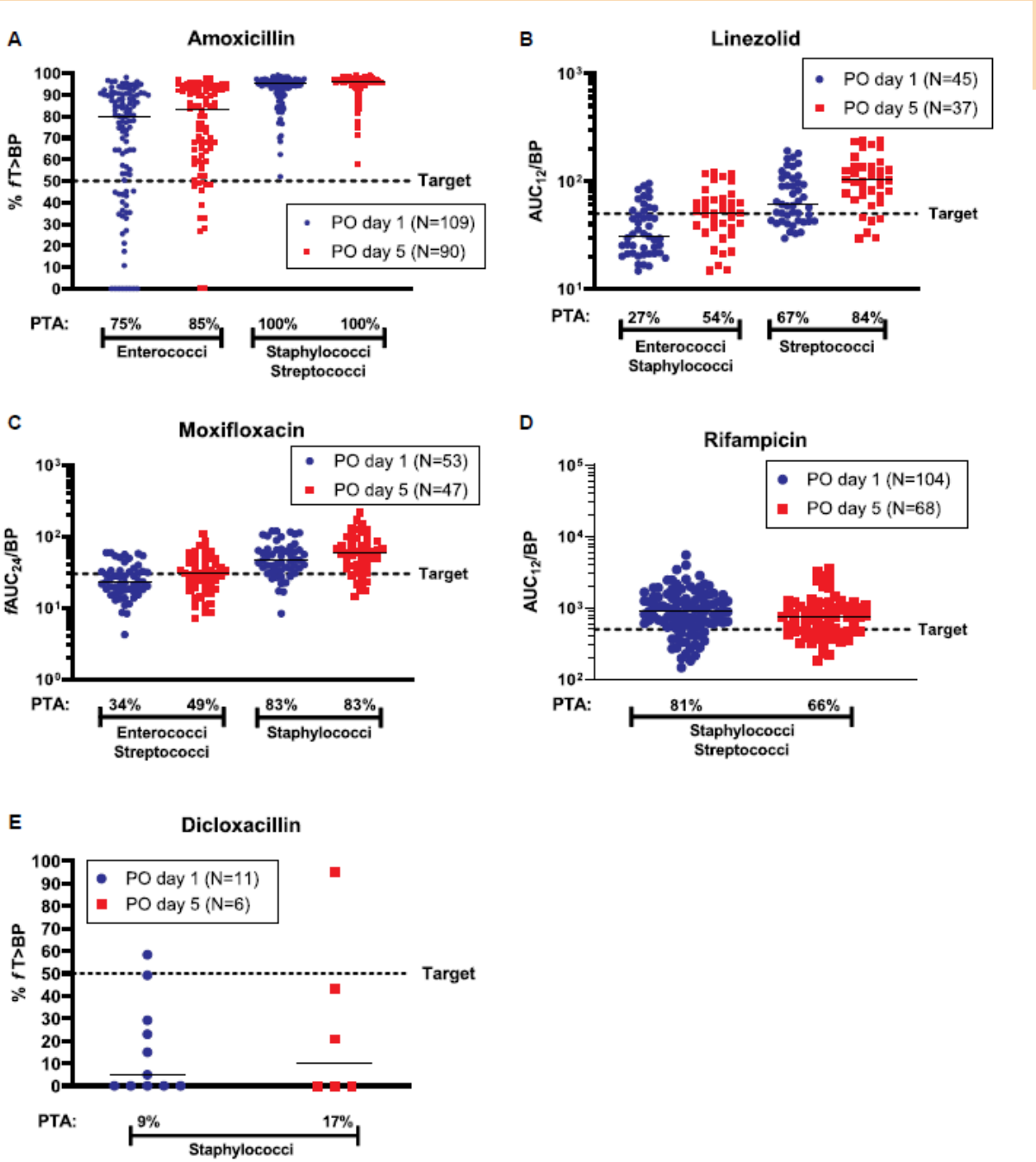


Figure 3. Target attainment of oral antibiotics in relation to clinical breakpoints. Solid black bars are median values. The letter *f* indicates the free unbound concentration; eg, *f*T > BP means the time above BP of the unbound concentration. Abbreviations: AUC, area under concentration-time curve; BP, clinical breakpoint; PO, oral; PTA, prob-

Pharmacologie – Linézolide TDM ?

Journal of Antimicrobial Chemotherapy

Prolonged use of linezolid in bone and joint infections: a retrospective analysis of adverse effects

Karin Veerman[1*], Jon Goosen[2], Karin Spijkers[3], Nynke Jager[4], Petra Heesterbeek[5] and Denise Telgt[1]

- 78 patients avec projet de traitement prolongé > 28 jours
- 86% traités > 28 jours
- Thrombopénie chez 4 patients, réversible à l'arrêt du ttt

RESEARCH Open Access

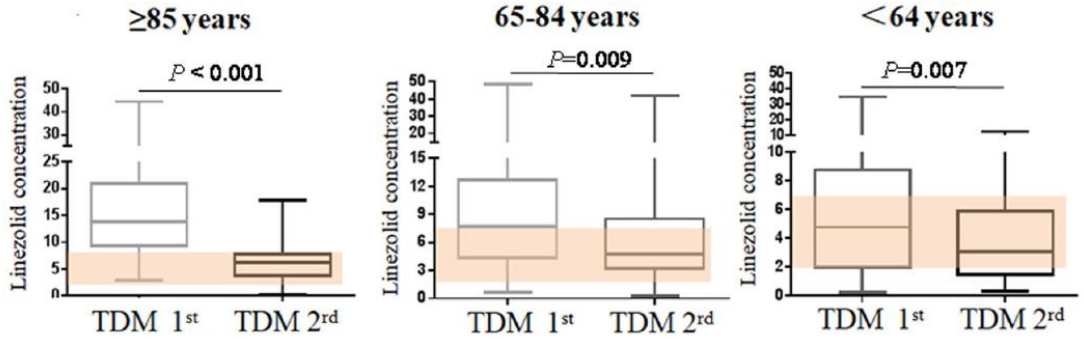
Linezolid dose adjustment according to therapeutic drug monitoring helps reach the goal concentration in severe patients, and the oldest seniors benefit more

Ying Xu[1†], Xilan Yang[2†], Pei Liang[3] and Chen Qu[4*]

BMC Series

BMC Infectious Diseases

- 330 patients, LINE 600*2/j
- Dosage avant 7ème dose



European Journal of Clinical Pharmacology (2023) 79:1303–1314
https://doi.org/10.1007/s00228-023-03542-z

REVIEW

Risk factors for thrombocytopenia in patients receiving linezolid therapy: a systematic review and meta-analysis

Dan Zhang[1] · Yasi Xu[2] · Xiang Wang[1] · Leping Hou[1] · Mengyu Xing[1] · Shuang Xu[1] · Rui Guo[1] · Ying Luo[1]

- 40 études,
- 6456 patients
- Thrombopénie 37%

Group and Prognostic factors	No. of patients (studies)	OR (95% CI)
Demographic factors		
Advanced age	1276 (6)	1.63 (1.09, 2.43)
Male sex	5736 (32)	1.13 (0.99, 1.30)
Lower body weight	776 (5)	2.20 (1.03, 4.72)
Comorbid conditions		
Renal impairment	4137 (21)	3.02 (2.32, 3.92)
Liver disease	1314 (8)	2.12 (1.58, 2.86)
Diabetes	2986 (11)	1.21 (0.98, 1.51)
Hypertension	1673 (6)	1.11 (0.88, 1.38)
Lung disease	2105 (6)	1.29 (1.01, 1.65)
Malignancy	1640 (6)	1.07 (0.73, 1.59)
Laboratory findings		
BPC < 150	827 (4)	3.50 (2.38, 5.14)
BPC < 200	1503 (6)	2.17 (1.17, 4.04)
Hypoproteinemia	707 (4)	1.41 (0.80, 2.48)
Factors associated with linezolid		
Treatment duration (7-13 days)	725 (4)	2.84 (1.68, 4.78)
Treatment duration >10 days	984 (4)	2.23 (1.40, 3.55)
Treatment duration >14 days	2482 (8)	1.95 (1.36, 2.79)
Oral	871 (6)	0.88 (0.46, 1.70)
Intravenous	901 (7)	0.96 (0.60, 1.54)
Oral and intravenous	568 (4)	1.09 (0.73, 1.64)
Concurrent medications		
Previous glycopeptide use	1945 (9)	0.97 (0.77, 1.22)
Fluoroquinolones	2193 (6)	1.39 (1.08, 1.78)
Piperacillin/Tazobactam	1763 (7)	1.30 (0.89, 1.91)
Carbapenem	2457 (7)	1.49 (1.15, 1.93)
Amiodarone	660 (4)	1.61 (0.62, 4.16)
Heparin	821 (5)	2.84 (1.70, 4.76)
Rifampin	872 (4)	1.25 (0.69, 2.23)
Aspirin	927 (3)	2.33 (1.15, 4.72)
Cephalosporin	1722 (5)	1.14 (0.90, 1.44)
Proton-Pump Inhibitors	678 (4)	1.01 (0.66, 1.56)

Pharmacologie – Linézolide + Rifampicine ?

JOURNAL ARTICLE

Journal of Antimicrobial Chemotherapy

Rifampicin reduces plasma concentration of linezolid in patients with infective endocarditis

Magnus Bock ✉, Johan G C Van Hasselt, Franziska Schwartz, Hengzhuang Wang, Niels Høiby, Kurt Fuursted, Nikolaj Ihlemann, Sabine Gill, Ulrik Christiansen, Niels Eske Bruun ... Show more

Journal of Antimicrobial Chemotherapy, Volume 78, Issue 12, December 2023, Pages 2840–2848, https://doi.org/10.1093/jac/dkad316

Published: 12 October 2023 **Article history** ▾

- 62 patients traités par linézolide dont 15 avec rifampicine

	Linézolide	Linézolide + rifampicine			
	600mg/12h	600mg/12h	900mg/12h	1200mg/12h	1500mg/12h
AUC12(mgh/L)	206	83	124	165	207
Cmin (mg/L)	10.3	1.6	2.4	3.2	4.0
PTA (%)					
CMI=4 mg/L	52.7	3.5	15.2	34.9	52.7
CMI=2 mg/L	94.3	34.9	67.6	88.2	94.3
Proba tox (%)	67.5	9.7	19.4	27.8	34.5

PTA = AUC12/CMI≥50

Toxicité hématologique Cmin≥7mg/L

frontiers | Frontiers in Pharmacology

Evaluation of the impact of rifampicin on the plasma concentration of linezolid in tuberculosis co-infected patients

Pan Yan†, Qun-Zhi Shi†, Yi-Xing Hu, Ying Zeng and Hong Lu*

Department of Pharmacy, The Affiliated Changsha Central Hospital, Hengyang Medical School, University of South China, Changsha, China

TABLE 3 Distribution of the plasma concentration of linezolid.

	C_{max} group		*p*-value	C_{min} group		*p*-value
	Linezolid group (n = 23)	Linezolid + rifampicin group (n = 34)		Linezolid group (n = 19)	Linezolid + rifampicin group (n = 12)	
Linezolid plasma concentrations (mg/L)	15.76 ± 5.77	13.18 ± 3.88	0.048*	8.38 ± 4.04	4.27 ± 3.00	0.005**

Pharmacologie – Clindamycine + Rifampicine ?

Contents lists available at ScienceDirect

International Journal of Antimicrobial Agents

journal homepage: www.elsevier.com/locate/ijantimicag

Pharmacokinetic interaction between rifampicin and clindamycin in staphylococcal osteoarticular infections

T. Goulenok[a,*], J. Seurat[b,#], A. de La Selle[c,#], V. Jullien[d], V. Leflon-Guibout[e], N. Grall[b,f], F.X. Lescure[b,g], R. Lepeule[h,i], J. Bertrand[b], B. Fantin[b], C. Burdet[b,j,†], A. Lefort[c,b,†]

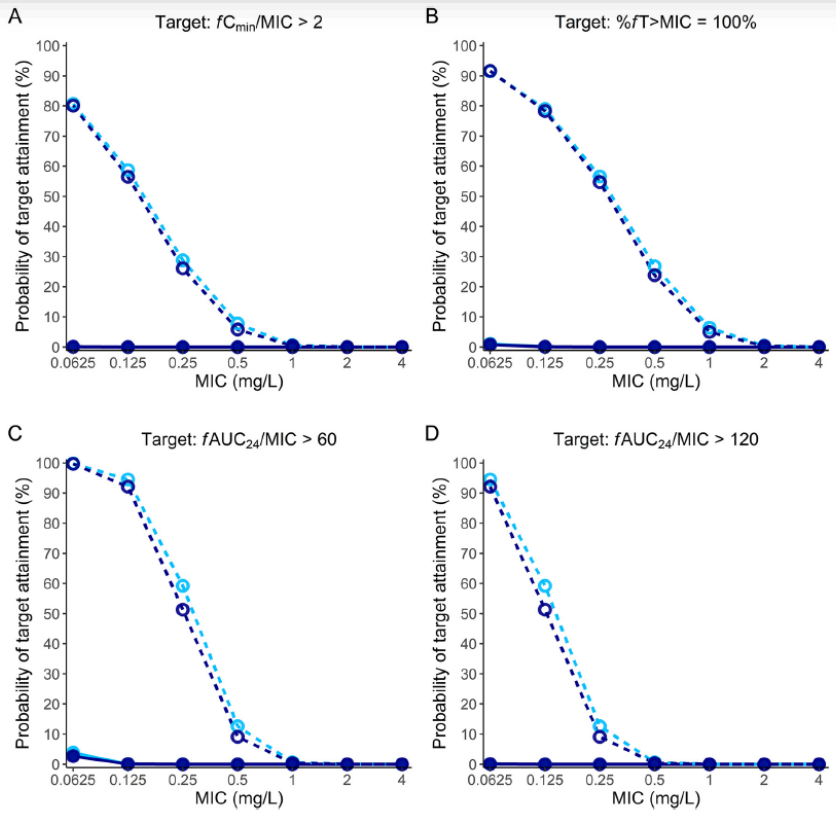


Figure 2. Probability of target attainment according to theoretical MIC without and with rifampicin co-administration for various clindamycin dosing regimens in the Monte Carlo simulation. Light blue lines refer to a 600 mg every 8 h clindamycin dosing regimen in a 60 kg patient, while dark blue lines refer to a 750 mg every 8 h clindamycin dosing regimen in a 90 kg patient. Solid lines represent simulations with rifampicin administration, and dashed lines represent simulations without rifampicin administration. To calculate free clindamycin pharmacokinetic/pharmacodynamic indices, an unbound clindamycin fraction of 14.7% of total plasma concentrations was used [28]. MIC, minimum inhibitory concentration; fC_{min}, free trough clindamycin plasma concentration; $\%fT_{>MIC}$, percentage of the dosing interval that the free plasma level exceeds the MIC; $fAUC_{24}$, area under the free concentration–time curve over 24 h.

- Rifampicine inducteur CYP3A4
- Mesure concentration clindamycine avant et après rifampicine 19 patients
- 2,7 vs < 0,05 mg/l sans et avec rifam
- Division facteur 16 AUC/MIC
- Modèle Monte Carlo

OXFORD ACADEMIC Journals Books

Journal of Antimicrobial Chemotherapy

JOURNAL ARTICLE

What clindamycin dose should be administered by continuous infusion during combination therapy with rifampicin? A prospective population pharmacokinetics study

Get access

Léo Mimram, Sophie Magréault, Younes Kerroumi, Dominique Salmon, Benjamin Kably, Simon Marmor, Anne-Sophie Jannot, Vincent Jullien ✉, Valérie Zeller

Journal of Antimicrobial Chemotherapy, Volume 78, Issue 12, December 2023, Pages 2943–2949, https://doi.org/10.1093/jac/dkad335

Published: 26 October 2023 **Article history**

Population (n= 124) :
- 20 Clinda IV seule
- 19 Clinda IV + Rifam
- 85 Clinda IV seule puis avec Rifam

Dose nécessaire de Clinda IV pour obtenir Concentration ≥ 3 mg/l pour > 90% des patients
=> 4200 mg/24h IVSE

Pharmacologie – Optimisation β-lactamines

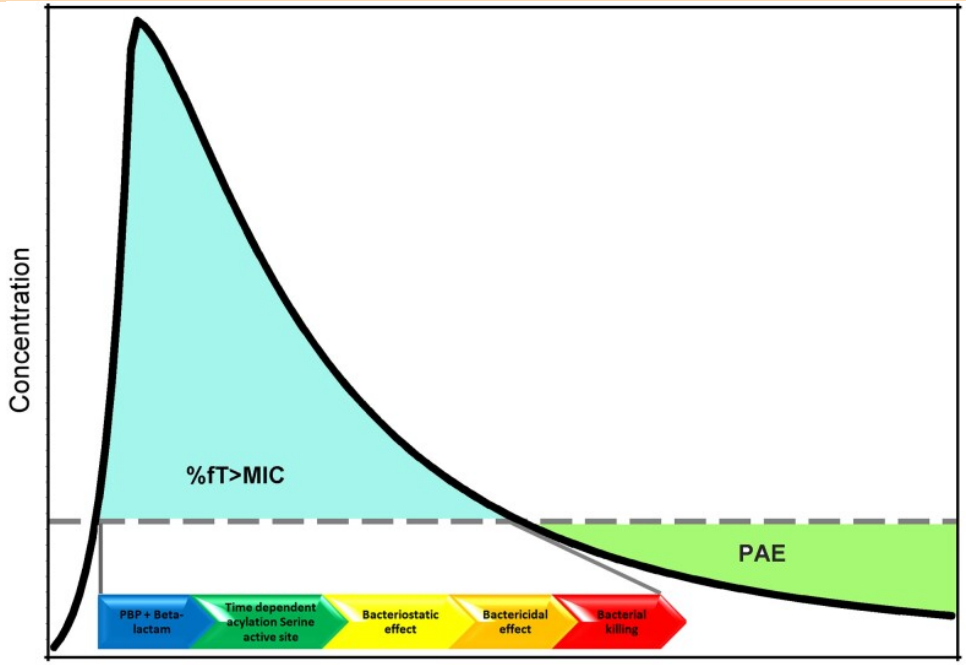
Open Forum Infectious Diseases
MAJOR ARTICLE

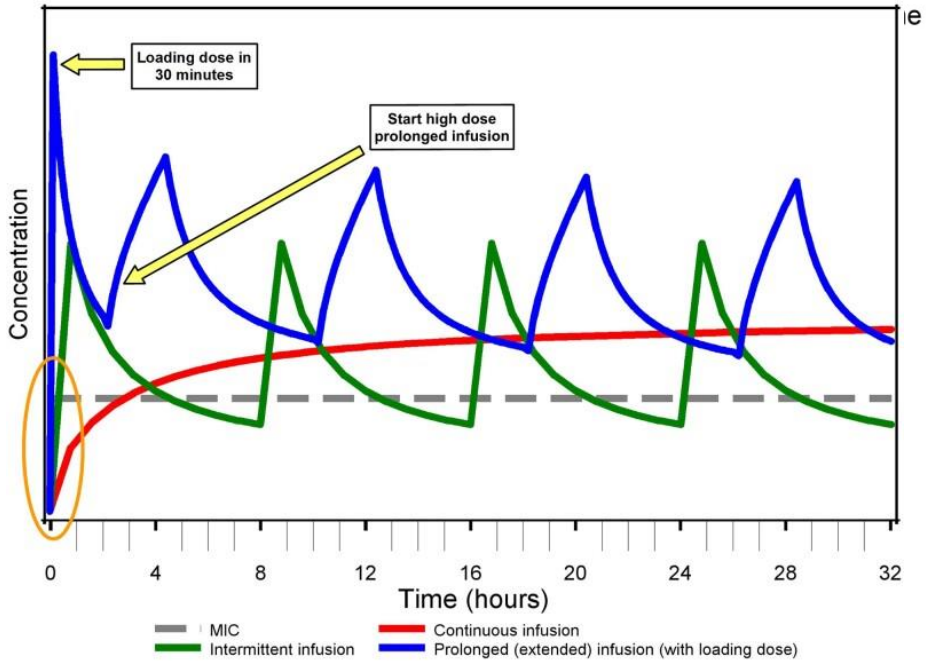
Optimizing the Use of Beta-Lactam Antibiotics in Clinical Practice: A Test of Time

Alwin Tilanus[1] and George Drusano[2]

Revue des différents paramètres :

- Temps dépendant, acylation des PLPs
- Effet post antibiotique
- Volume de distribution
- Effet inoculum
- Hypoalbuminémie
- Cibles PK/PD
- Prévention émergence résistance
- Dose standard ou dosage individualisé dynamique
- Toxicodynamique
- - …





Ostéoarticulaire – PJI : intérêt Rifampicine ?

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International Journal of Antimicrobial Agents

journal homepage: www.elsevier.com/locate/ijantimicag

Review

Clinical outcomes of rifampicin combination therapy in implant-associated infections due to staphylococci and streptococci: A systematic review and meta-analysis

Erlangga Yusuf[a], Wichor Bramer[b], Adam A. Anas[a,c,*]

- 14 Etudes
- Qualité modérée
- Intérêt combinaison PJI méthode DAIR
- Pas d'intérêt pour PVE ?

Study or Subgroup	Rifampicin combination Events	Total	No rifampicin Events	Total	Weight	Odds Ratio M-H, Fixed, 95% CI
Becker 2020	41	58	13	21	7.8%	1.48 [0.52, 4.23]
Beldman 2022	276	407	120	262	65.3%	2.49 [1.81, 3.43]
El Helou 2010	34	45	35	56	10.6%	1.85 [0.78, 4.42]
Holmberg 2015	56	69	8	17	3.4%	4.85 [1.57, 14.96]
Karlsen 2020	17	23	18	25	6.3%	1.10 [0.31, 3.95]
Munoz-Gallego 2020	25	37	4	18	2.4%	7.29 [1.97, 26.95]
Senneville 2011	25	31	7	10	2.8%	1.79 [0.35, 9.02]
Vilchez 2014	37	43	3	4	1.1%	2.06 [0.18, 23.16]
Zimmerli 1998	12	12	7	12	0.4%	18.33 [0.88, 380.70]
Total (95% CI)		**725**		**425**	**100.0%**	**2.49 [1.93, 3.23]**
Total events	523		215			

Heterogeneity: Chi² = 8.74, df = 8 (P = 0.36); I² = 8%
Test for overall effect: Z = 6.94 (P < 0.00001)

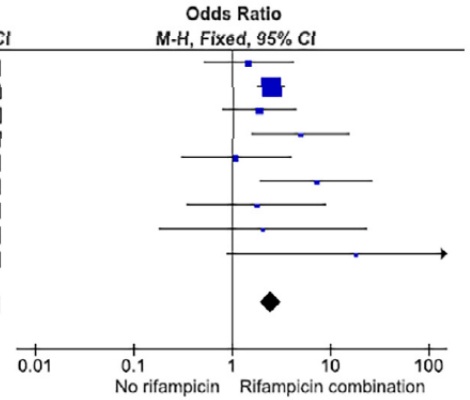


Fig. 2. Forest plot on the effect of adjunctive rifampicin versus no rifampicin in patients who underwent a debridement, antibiotics and implant retention (DAIR) procedure. CI, confidence interval.

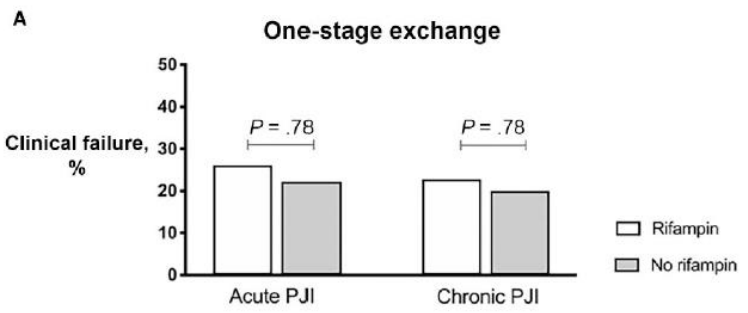
Open Forum Infectious Diseases

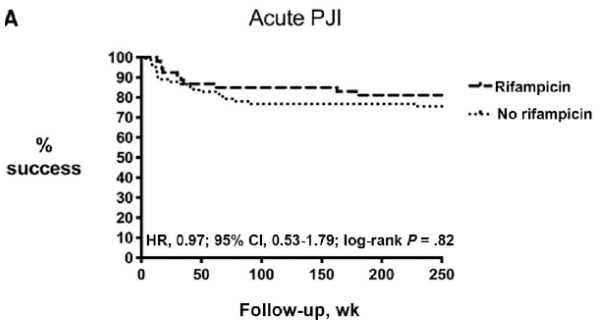
MAJOR ARTICLE

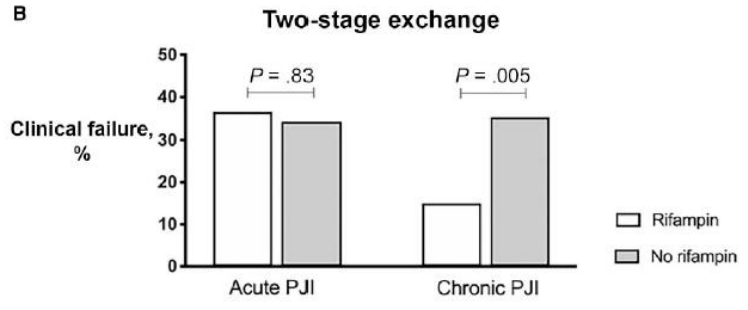
Should We Use Rifampicin in Periprosthetic Joint Infections Caused by Staphylococci When the Implant Has Been Exchanged? A Multicenter Observational Cohort Study

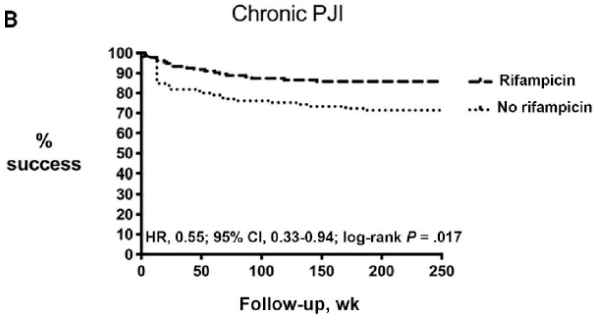
Tobias Siegfried Kramer,[1,2,3] Alex Soriano,[4] Sarah Tedeschi,[5,6] Antonia F. Chen,[7] Pierre Tattevin,[8] Eric Senneville,[9] Joan Gomez-Junyent,[10] Victoria Birlutiu,[11] Sabine Petersdorf,[12] Vicens Diaz de Brito,[13] Ignacio Sancho Gonzalez,[14] Katherine A. Belden,[15] and Marjan Wouthuyzen-Bakker[16]; on behalf of the ESCMID Study Group on Implant Associated Infections (ESGIAI)

- Retrospective, internationale, observationnelle 2013-2018
- 375 infections prothèse orthopédique (PJI)
- CJP composite : rechute/ATB suppressif/chirurgie retrait/décès









Antibiothérapie – Traitement *Stenotrophomonas maltophilia*

antibiotics

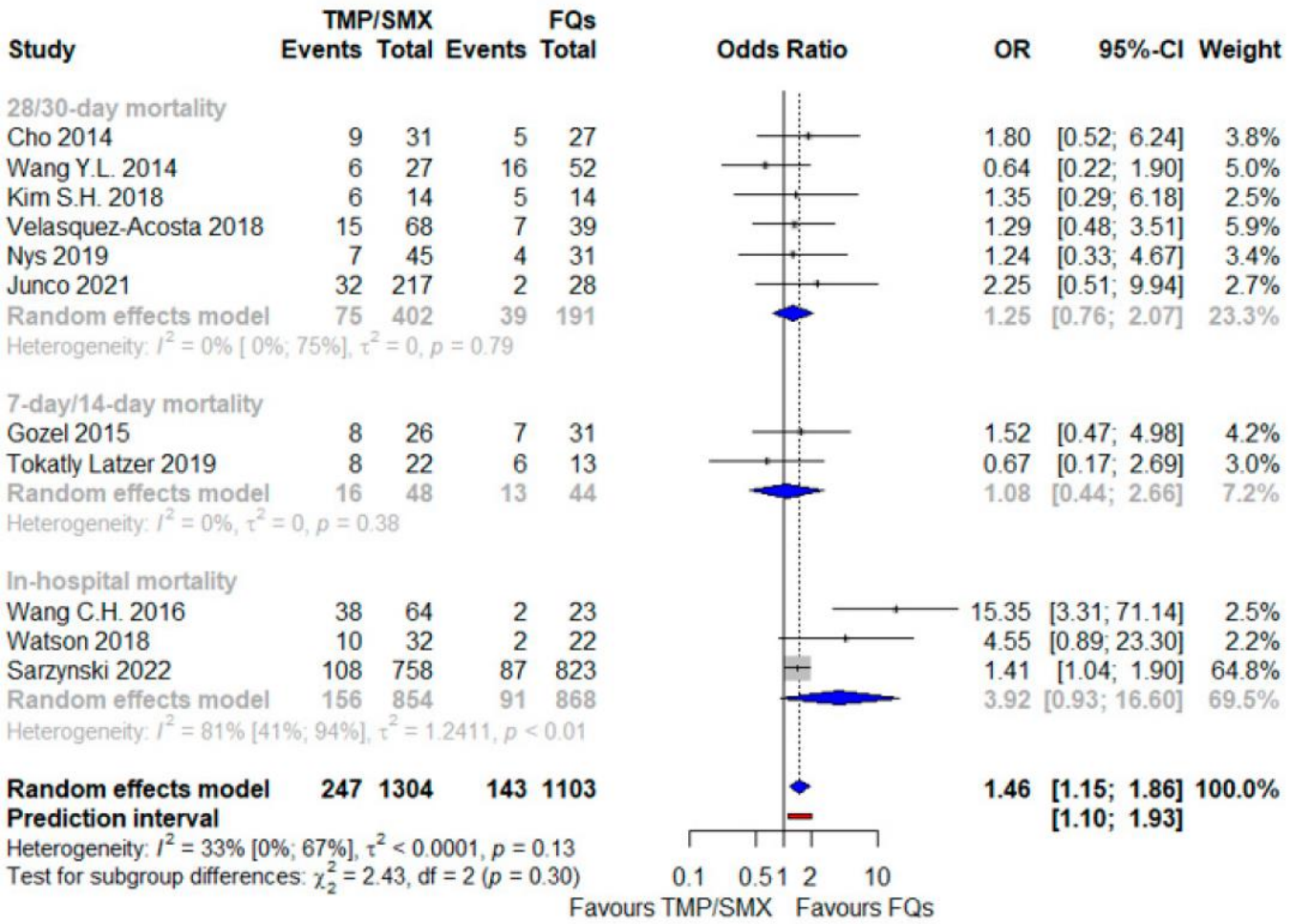
MDPI

Systematic Review

Stenotrophomonas maltophilia Infections: A Systematic Review and Meta-Analysis of Comparative Efficacy of Available Treatments, with Critical Assessment of Novel Therapeutic Options

Alberto Enrico Maraolo [1,*], Federica Licciardi [2], Ivan Gentile [2], Annalisa Saracino [3], Alessandra Belati [3] and Davide Fiore Bavaro [3]

- CJP : mortalité
- 11 études rétrospectives 2407 patients : en faveur usage FQ en monothérapie vs cotrimoxazole
- Manque de puissance pour les dérivés des tétracyclines



Dermatologie – Infection invasive à streptocoque du groupe A

RESEARCH Open Access

Invasive group A streptococcal infections requiring admission to ICU: a nationwide, multicenter, retrospective study (ISTRE study)

Arthur Orieux[1*], Renaud Prevel[1,2], Margot Dumery[1], Jean-Baptiste Lascarrou[3], Noémie Zucman[4], Florian Reizine[5], Pierre Fillatre[6], Charles Detollenaere[7], Cédric Darreau[8], Nadiejda Antier[9], Mélanie Saint-Léger[10], Guillaume Schnell[11], Béatrice La Combe[12], Charlotte Guesdon[13], Franklin Bruna[14], Antoine Guillon[15], Caroline Varillon[16], Olivier Lesieur[17], Hubert Grand[18], Benjamin Bertrand[19], Shidasp Siami[20], Pierre Oudeville[21], Céline Besnard[22], Romain Persichini[23], Pierrick Bauduin[24], Martial Thyrault[25], Mathieu Evrard[26], David Schnell[27], Johann Auchabie[28], Adrien Auvet[29], Jean-Philippe Rigaud[30], Pascal Beuret[31], Maxime Leclerc[32], Asaël Berger[33], Omar Ben Hadj Salem[34], Julien Lorber[35], Annabelle Stoclin[36], Olivier Guisset[1], Léa Bientz[37], Pierre Khan[38], Vivien Guillotin[1], Jean-Claude Lacherade[39] and Alexandre Boyer[1,2] on behalf of ISTRE Group

CRITICAL CARE

- Rétrospective, observationnelle, 37 services de réanimation
- Comparaison avant – après COVID

Table 2 Treatment and outcomes of iGAS infections

	All patients (*n* = 222)	Before COVID-19 (*n* = 73)	After COVID-19 (*n* = 149)	*p* value
Treatment of iGAS infections				
Time between onset of symptoms and ICU admission (days), *median (IQR)*	3 (1–4)	2 (1–5)	3 (1–4)	0.438
Time between ICU admission and iGAS infection confirmed (days), *median (IQR)*	0 (0–1)	0 (0–1)	0 (0–1)	0.235
Empiric antimicrobial therapy at ICU admission, *n* (%)	221 (100%)	72 (99%)	149 (100%)	1
Time from ICU admission to effective antimicrobial therapy (days), *median (IQR)*	0 (0–0)	0 (0–0)	0 (0–0)	0.235
Monotherapy, n (%)	64 (29%)	30 (41%)	34 (23%)	0.005
Double therapy, n (%)	131 (59%)	38 (52%)	93 (62%)	0.140
Triple therapy, n (%)	26 (12%)	5 (7%)	21 (14%)	0.115
Clindamycin use, *n* (%)	124 (56%)	30 (44%)	94 (63%)	0.001
Linezolid use, *n* (%)	34 (15%)	6 (6%)	28 (19%)	0.040
Intravenous immunoglobulin use, *n* (%)	17 (8%)	2 (3%)	15 (10%)	0.054
Surgical source control needed, *n* (%)	90 (41%)	27 (37%)	63 (42%)	0.450
Time from ICU admission to surgical source control (days), *median (IQR)*	0 (0–1)	0 (0–1)	0 (0–1)	0.965
Invasive mechanical ventilation, *n* (%)	135 (61%)	36 (49%)	99 (66%)	0.014
Length of intubation (days), *median (IQR)*	7 (2–14)	6 (3–15)	8 (2–14)	0.998
Norepinephrine use, *n* (%)	164 (74%)	50 (68%)	114 (77%)	0.173
Maximum norepinephrine dose (µg/kg/min), *median (IQR)*	0.9 (0.4–2)	0.6 (0.2–1.2)	1.2 (0.5–2.1)	0.002
Dobutamine use, *n* (%)	23 (11%)	4 (5%)	19 (14%)	0.065
Renal replacement therapy, *n* (%)	57 (26%)	17 (23%)	40 (29%)	0.569
Veno-arterial ECMO, *n* (%)	3 (1%)	1 (1%)	2 (1%)	0.987
Outcome of iGAS infections				
ICU length of stay (days), *median (IQR)*	7 (4–16)	6 (4–16)	8 (4–16)	0.278
Hospitalization length of stay (days), *median (IQR)*	22 (11–35)	23 (9–37)	22(13–34)	0.711
ICU death, n (%)	43 (19%)	10 (14%)	33 (22%)	0.135
Deaths at day 90, *n* (%)	46 (21%)	13 (18%)	33 (22%)	0.820
Time from ICU admission to death (days), median (IQR)	2 (0–7)	1 (1–3)	2 (1–13)	0.540

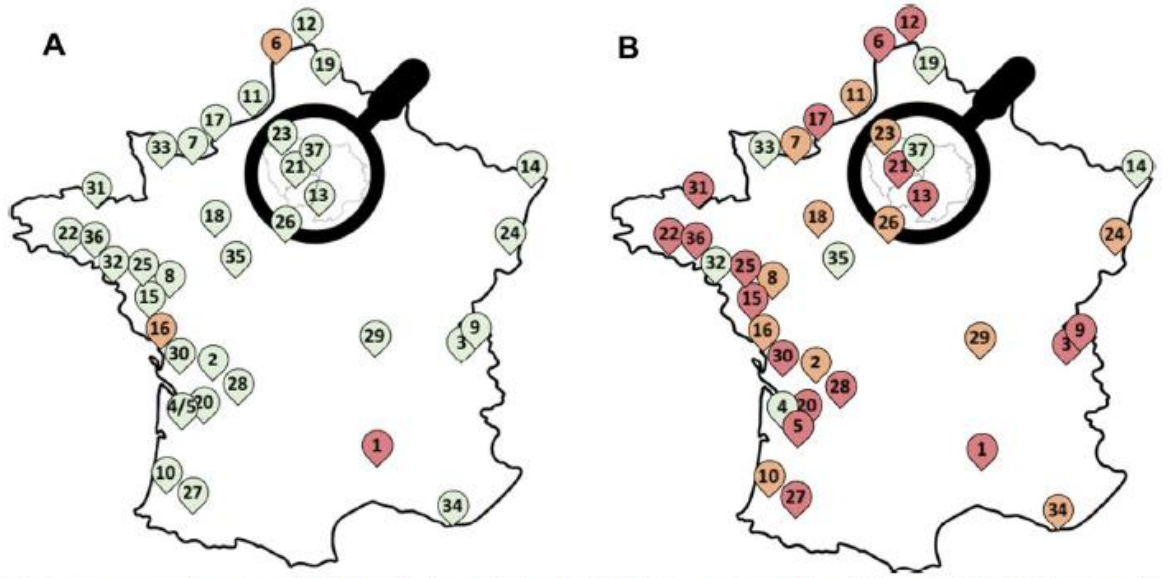


Fig. 1 iGAS infections case rate in metropolitan's ICUs before and after COVID-19. Case rate > 1000: red, Case rate 500–1000: orange, Case rate < 500: green. **A** Before COVID-19 (October 2018 to March 2019 and October 2019 to March 2020). **B** After COVID-19 (October 2022 to March 2023)

- 222 cas, incidence 205 vs 949/100 000 admissions
- Plus de choc toxique streptococcique (STSS)
- Clindamycine diminue la mortalité : OR = 0.20 [0.08–0.54], $p = 0.002$

Dermatologie – Linézolide vs Clindamycine

Clinical Infectious Diseases
VIEWPOINTS

Should Linezolid Replace Clindamycin as the Adjunctive Antimicrobial of Choice in Group A Streptococcal Necrotizing Soft Tissue Infection and Toxic Shock Syndrome? A Focused Debate

Nicolás Cortés-Penfield[a] and Jonathan H. Ryder[a]

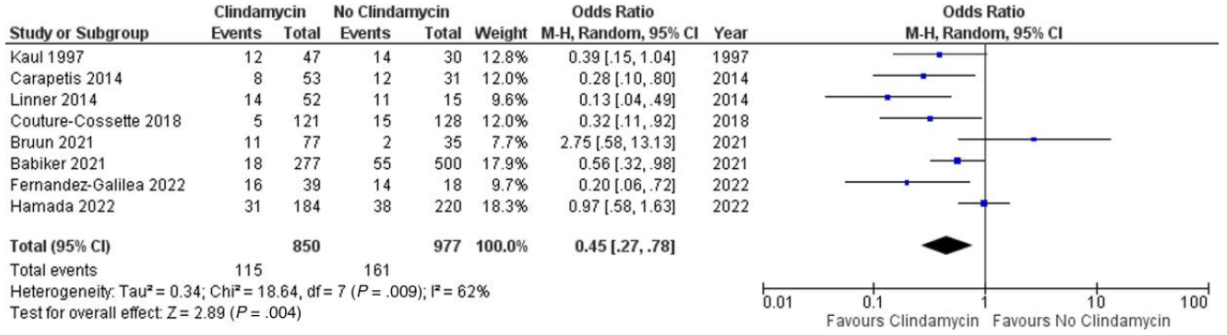


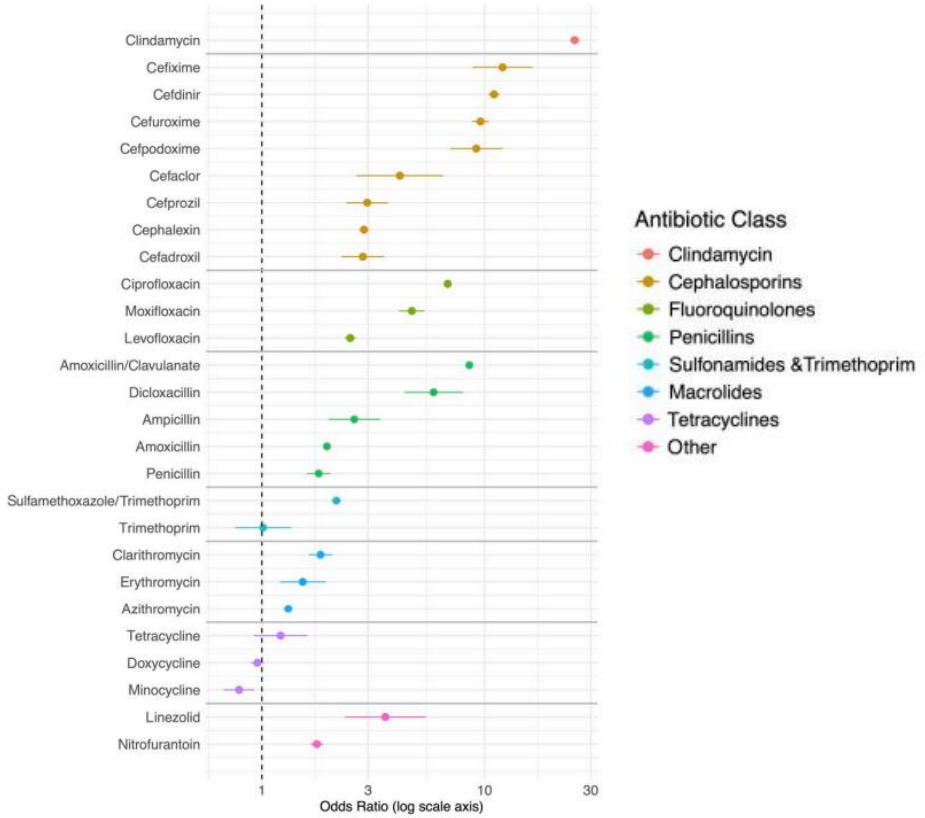
Figure 1. Meta-analysis of the effect of clindamycin treatment on mortality in invasive Group A streptococcal infections. Event rates from Linnér et al and Bruun et al are not directly reported in the text but could be back-calculated from the provided frequencies of clindamycin treatment and mortality in combination with the univariate odds ratios of their association. Abbreviation: CI, confidence interval.

Open Forum Infectious Diseases
MAJOR ARTICLE

Comparison of Different Antibiotics and the Risk for Community-Associated *Clostridioides difficile* Infection: A Case–Control Study

Aaron C. Miller,[1] Alan T. Arakkal,[2] Daniel K. Sewell,[2] Alberto M. Segre,[3] Joseph Tholany,[1] and Philip M. Polgreen,[1] CDC MInD-Healthcare Group

- 159 404 cas / 797 080 contrôles (1 : 5)



Dermatologie – Linézolide vs Clindamycine

Open Forum Infectious Diseases

MAJOR ARTICLE

Comparison of Adjuvant Clindamycin vs Linezolid for Severe Invasive Group A *Streptococcus* Skin and Soft Tissue Infections

Emily L. Heil,[1] Harpreet Kaur,[2] Anthony Atalla,[3] Sapna Basappa,[4] Minu Mathew,[5] Hyunuk Seung,[1] J. Kristie Johnson,[6] and Gregory M. Schrank[2]

- Retrospective observationnelle, monocentrique
- DHB sévère documentée à Strepto A en réanimation, opérés
- 23 Clinda vs 23 Liné avec ajustement
- CJP : évolution SOFA

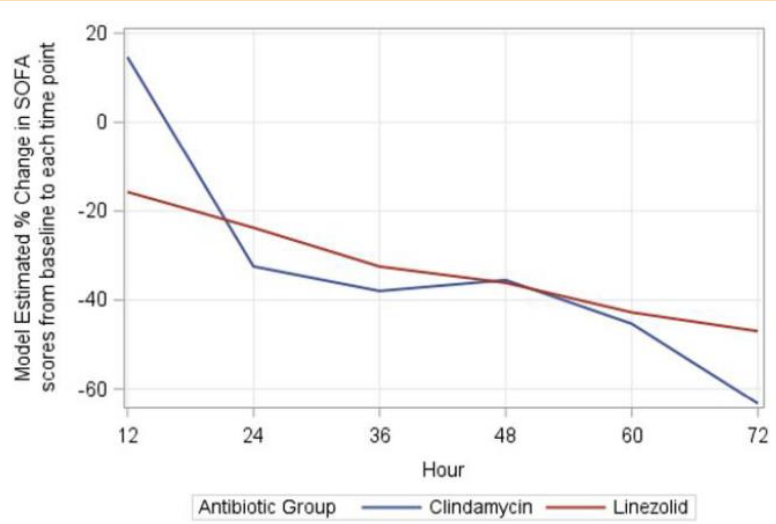


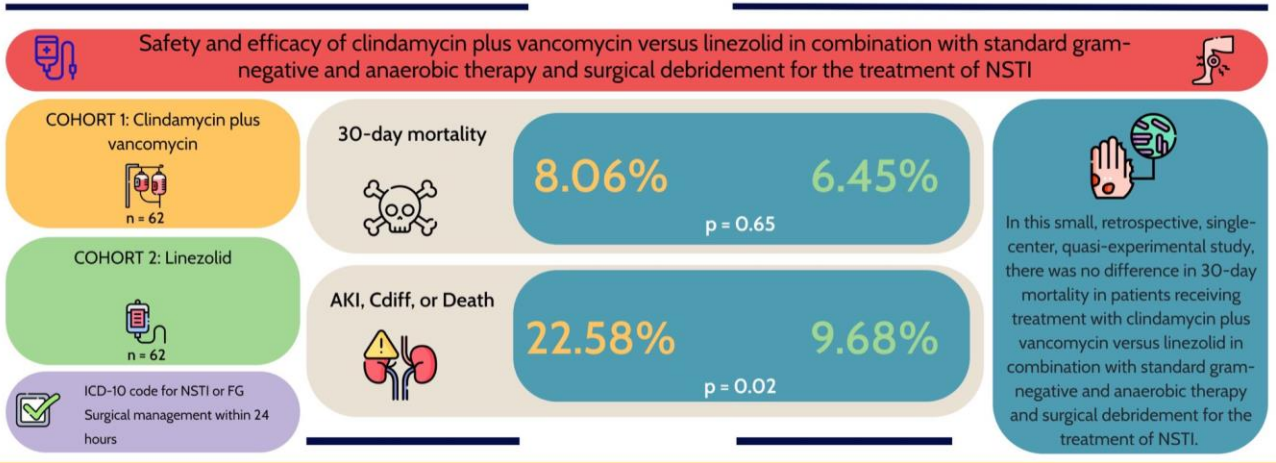
Figure 1. The model-estimated percentage change in Sequential Organ Failure Assessment (SOFA) score for clindamycin and linezolid across the first 72 hours of hospitalization (Table 3).

Open Forum Infectious Diseases

MAJOR ARTICLE

Clindamycin Plus Vancomycin Versus Linezolid for Treatment of Necrotizing Soft Tissue Infection

Joshua Dorazio,[1] Abby L. Chiappelli,[1] Ryan K. Shields,[2] Y. Vivian Tsai,[3] Peyton Skinker,[1] Michael J. Nabozny,[4] Graciela Bauza,[5] Raquel Forsythe,[5] Matthew R. Rosengart,[5] Scott R. Gunn,[5] Rachel Marini,[1] Lloyd Clarke,[1] Bonnie Falcione,[1] Justin Ludwig,[6] and Erin K. McCreary[2,6]



Pharmacologie – Pipéracilline-Tazobactam vs Cefepime

JAMA Network™

JAMA | Original Investigation | CARING FOR THE CRITICALLY ILL PATIENT

Cefepime vs Piperacillin-Tazobactam in Adults Hospitalized With Acute Infection

The ACORN Randomized Clinical Trial

Edward T. Qian, MD, MSc; Jonathan D. Casey, MD, MSc; Adam Wright, PhD; Li Wang, MS; Matthew S. Shotwell, PhD; Justin K. Siemann, PhD; Mary Lynn Dear, PhD; Joanna L. Stollings, PharmD; Brad D. Lloyd, RRT-ACCS; Tanya K. Marvi, MD; Kevin P. Seitz, MD, MSc; George E. Nelson, MD; Patty W. Wright, MD; Edward D. Siew, MD, MSc; Bradley M. Dennis, MD; Jesse O. Wrenn, MD, PhD; Jonathan W. Andereck, MD, MBA; Jin H. Han, MD, MSc; Wesley H. Self, MD, MPH; Matthew W. Semler, MD, MSc; Todd W. Rice, MD, MSc; for the Vanderbilt Center for Learning Healthcare and the Pragmatic Critical Care Research Group

QUESTION Does the choice between cefepime and piperacillin-tazobactam affect the risks of acute kidney injury or neurological dysfunction in adults hospitalized with acute infection?

CONCLUSION Among hospitalized adults, the risk of acute kidney injury did not differ between cefepime and piperacillin-tazobactam, but neurological dysfunction was more common with cefepime.

POPULATION

1439 Men 1071 Women

Adults hospitalized with acute infection

Median age: 58 years

LOCATION

1 Medical center in Nashville, Tennessee

INTERVENTION

2634 Patients randomized
2511 Patients analyzed

1214 **Cefepime**
Administered as an intravenous push over 5 minutes

1297 **Piperacillin-tazobactam**
Administered as a bolus for the initial administration and then extended infusion over 4 hours for subsequent doses

PRIMARY OUTCOME

Highest stage of acute kidney injury or death by day 14 (measured on a 5-level ordinal scale; range: no acute kidney injury to death)

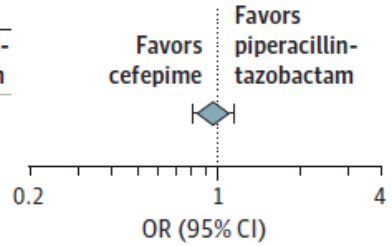
FINDINGS

Highest stage of acute kidney injury or death by day 14

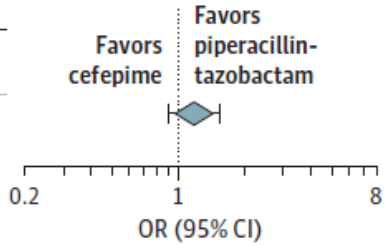
Cefepime	
Survived with stage 3 acute kidney injury	7.0% (85 of 1214 patients)
Died	7.6% (92 of 1214 patients)
Piperacillin-tazobactam	
Survived with stage 3 acute kidney injury	7.5% (97 of 1297 patients)
Died	6.0% (78 of 1297 patients)

There was no significant between-group difference: Odds ratio, 0.95 (95% CI, 0.80 to 1.13); $P = .56$

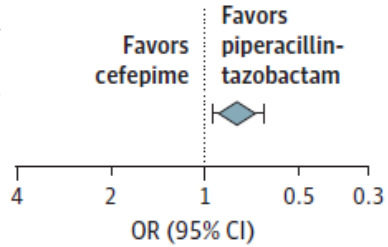
Subgroup	No. of patients	Acute kidney injury ordinal scale, median (IQR)[a] Cefepime	Piperacillin-tazobactam
Overall	2511	0 (0-1)	0 (0-1)



Major adverse kidney events at 14 d, No./total (%)[b] Cefepime	Piperacillin-tazobactam
124/1214 (10.2)	114/1297 (8.8)



Delirium- and coma-free days, median (IQR)[c] Cefepime	Piperacillin-tazobactam
14 (14-14)	14 (14-14)



Pharmacologie – Pipéracilline-Tazobactam + Vancomycine ?

THE OFFICIAL JOURNAL OF ESICM
INTENSIVE CARE MEDICINE

ORIGINAL

Association of vancomycin plus piperacillin–tazobactam with early changes in creatinine versus cystatin C in critically ill adults: a prospective cohort study

Todd A. Miano[1,2,3*], Sean Hennessy[1,2,3], Wei Yang[1,2,3], Thomas G. Dunn[4], Ariel R. Weisman[4], Oluwatosin Oniyide[4], Roseline S. Agyekum[4], Alexandra P. Turner[4], Caroline A. G. Ittner[4], Brian J. Anderson[4], F. Perry Wilson[5], Raymond Townsend[6], John P. Reilly[4], Heather M. Giannini[4], Christopher V. Cosgriff[4], Tiffanie K. Jones[4], Nuala J. Meyer[4] and Michael G. S. Shashaty[3,4]

- Cohorte prospective monocentrique
- 739 patients dont 192 avec dosage cystatine
- Comparaison CEFEPIME+VANCO vs PIPE-TAZO+VANCO
- Pas de modification significative sur les biomarqueurs alternatifs et les données cliniques

⇒ dialyse: RR 0.63 (95% CI 0.31, 1.29);

⇒ mortalité: RR 1.05 (95%CI 0.79, 1.41).

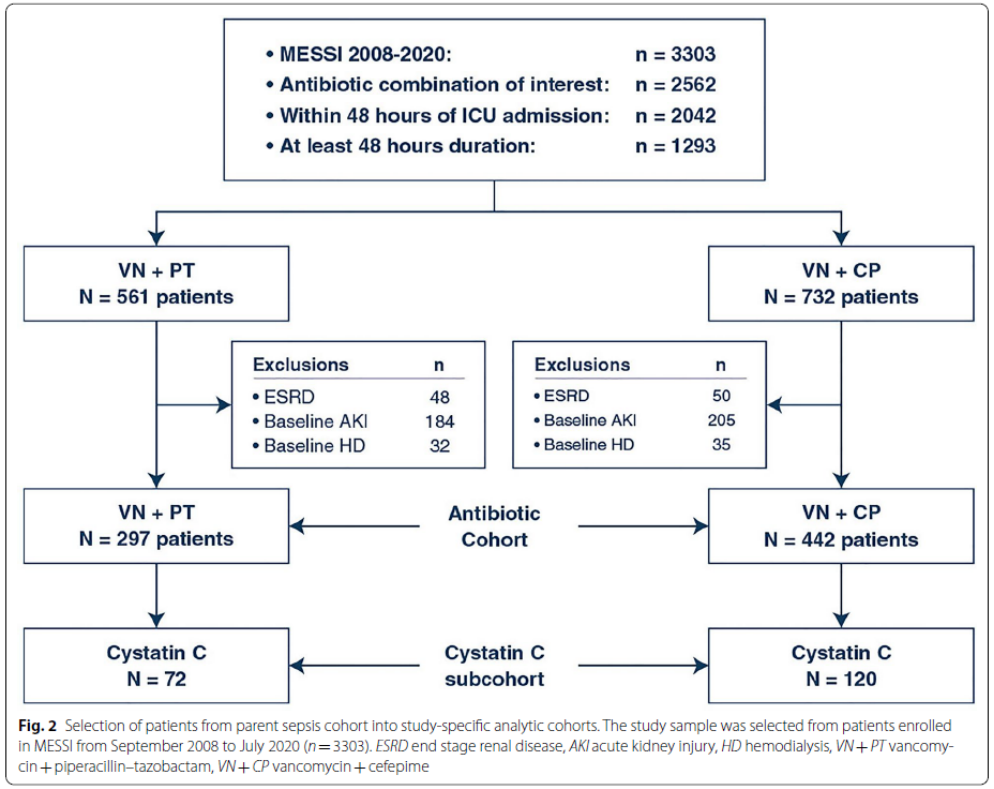


Fig. 2 Selection of patients from parent sepsis cohort into study-specific analytic cohorts. The study sample was selected from patients enrolled in MESSI from September 2008 to July 2020 (*n* = 3303). *ESRD* end stage renal disease, *AKI* acute kidney injury, *HD* hemodialysis, *VN + PT* vancomycin + piperacillin–tazobactam, *VN + CP* vancomycin + cefepime

Table 3 Rates of ≥ 50% increases of kidney function biomarkers at day two

	Cystatin C Cohort (*n* = 192)			Antibiotic Cohort (*n* = 739)		
	VN + CP	VN + PT	Rate ratio[a]	VN + CP	VN + PT	Rate ratio[a]
≥ 50% increase cystatin C, *n* (%)						
Crude	17 (14.2)	14 (19.4)	1.37 (0.72, 2.61)	–	–	–
IPTW			0.95 (0.44, 2.02)			–
≥ 50% increase creatinine, *n* (%)						
Crude	10 (8.3)	14 (19.4)	2.33 (1.09, 4.97)	43 (9.7)	54 (18.2)	1.87 (1.29, 2.71)
IPTW			1.86 (0.85, 4.09)			1.55 (1.02, 2.34)
≥ 50% increase BUN, *n* (%)						
Crude	27 (22.5)	19 (26.4)	1.17 (0.70, 1.95)	90 (20.4)	63 (21.2)	1.04 (0.78, 1.38)
IPTW			0.99 (0.57, 1.75)			0.88 (0.63, 1.23)

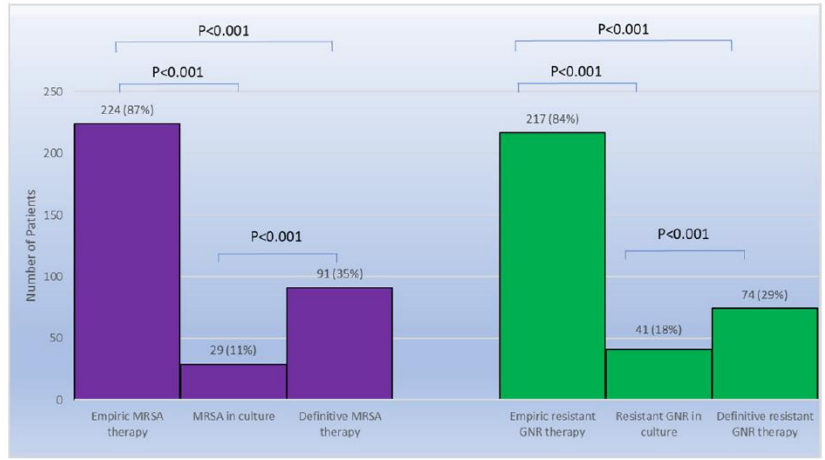
VN + PT vancomycin + piperacillin–tazobactam, *VN + CP* vancomycin + cefepime

Stewarship – FOMO

Antimicrobial Stewardship & Healthcare Epidemiology

Original Article

Fear of Missing Organisms (FOMO): the discordance among broad-spectrum empiric antibiotic therapy, microbiologic results, and definitive antibiotic therapy for diabetic foot infections and lower extremity osteomyelitis



JAC Antimicrob Resist
https://doi.org/10.1093/jacamr/dlac141

JAC-Antimicrobial Resistance

Addition of anaerobic coverage for treatment of biliary tract infections: a propensity score-matched cohort study

Marina Simeonova[1,2], Nick Daneman[3,4], Philip W. Lam[3] and Marion Elligsen[1,4]*

- Rétrospective monocentrique, 2015-2021
- 398 patients avec ou sans couverture anti-anaérobie > 72h (inclut *Bacteroides spp*)
- Score propension

	No anaerobic coverage N = 209	Anaerobic coverage N = 189
Main antibiotic regimen[b]		
First- or third-generation cephalosporin ± ampicillin	198	0
First- or third-generation cephalosporin ± ampicillin plus metronidazole	0	119
Fluoroquinolone monotherapy	11	1
Fluoroquinolone plus metronidazole	0	16
Piperacillin/tazobactam (<72 h)	0	13

Table 2. Primary and secondary outcomes before and after propensity-score matching

	OR (95% CI)[a]	aOR (95% CI)[a]
Mortality (within 30 days) or relapse (within 90 days)	4.19 (1.85–9.47)	1.23 (0.69–2.22)
Secondary outcomes		
LOS, mean (SD)	6.79 (2.70–17.10)	4.85 (1.68–13.98)
Antibiotic duration, mean (SD)	5.15 (3.23–8.23)	4.14 (2.61–6.57)
Adverse drug reactions	3.43 (0.92–12.88)	1.01 (0.97–1.05)

[a]OR calculated with anaerobic coverage as the intervention group and treatment without anaerobic coverage as the reference group.

Allergologie – Rash sous ATB MNI

Clinical Infectious Diseases
MAJOR ARTICLE

Antibiotic Myths for the Infectious Diseases Clinician

Erin K. McCreary,[1] Melissa D. Johnson,[2] Travis M. Jones,[2] S. Shaefer Spires,[2] Angelina E. Davis,[2] April P. Dyer,[2] Elizabeth Dodds Ashley,[2] and Jason C. Gallagher[3]

AMERICAN SOCIETY FOR MICROBIOLOGY | Antimicrobial Agents and Chemotherapy®
CLINICAL THERAPEUTICS

Association between Antibiotic Exposure and the Risk of Rash in Children with Infectious Mononucleosis: a Multicenter, Retrospective Cohort Study

Rui Zhang,[a] Zhen Mao,[b] Chang Xu,[c] Wen Wang,[d] Joey Sum-wing Kwong,[e] Minjie Xu,[f] Yi Song,[g] Tianyi Lv,[h] Zhiyuan Teng,[i] Ruifeng Zhong,[j] Hui Liu,[k] Yang Liu,[l] Qin Wang,[m] Ying Wang,[n] Yuan Zhang,[o] Shuya Chen,[p] Xiuli Chai,[q] Rui He,[r] Wenyi Zheng,[r] Jiaxing Zhang[a]

TABLE 2 Results of univariate and multivariate (generalized linear model) analyses[a]

		Adjusted[b]		
Outcome	Exposure vs comparator	OR	95% CI	*P*
Overall rash	Antibiotics vs control	1.47	1.04–2.08	0.029[c]
Antibiotic-associated rash	Amoxicillin vs other antibiotics	0.48	0.10–2.31	0.360

TABLE 3 Incidence of different antibiotic-associated rash ($n = 433$)

	No. of patients		
Antibiotic(s)	Treated	With antibiotic-associated rash	Incidence (%)
Amoxicillin/amoxicillin-clavulanate	31	1	3.23
Other penicillins	52	2	3.85
Cephalosporins	281	20	7.12
Macrolides	69	2	2.90

- Rétrospective, 14 hôpitaux
- 767 enfants avec MNI
- 92 rashs (12%);
- 43 rashs associés aux antibiotiques
- 12-18 ans facteur de risque de rash

Allergologie – Score PEN-FAST

JAMA Internal Medicine | Original Investigation

Efficacy of a Clinical Decision Rule to Enable Direct Oral Challenge in Patients With Low-Risk Penicillin Allergy
The PALACE Randomized Clinical Trial

Ana Maria Copaescu, MD; Sara Vogrin, MBiostat; Fiona James, BBiomedSci; Kyra Y. L. Chua, PhD; Morgan T. Rose, MBBS; Joseph De Luca, MBBS; Jamie Waldron, MD; Andrew Awad, MD; Jack Godsell, MBBS; Elise Mitri, BPharm; Belinda Lambros, MAdvNursPrac; Abby Douglas, PhD; Rabea Youcef Khoudja, MD; Ghislaine A. C. Isabwe, MD; Genevieve Genest, MD; Michael Fein, MD; Cristine Radojicic, MD; Ann Collier, MD; Patricia Lugar, MD; Cosby Stone, MD; Moshe Ben-Shoshan, MD; Nicholas A. Turner, MD; Natasha E. Holmes, PhD; Elizabeth J. Phillips, MD; Jason A. Trubiano, PhD

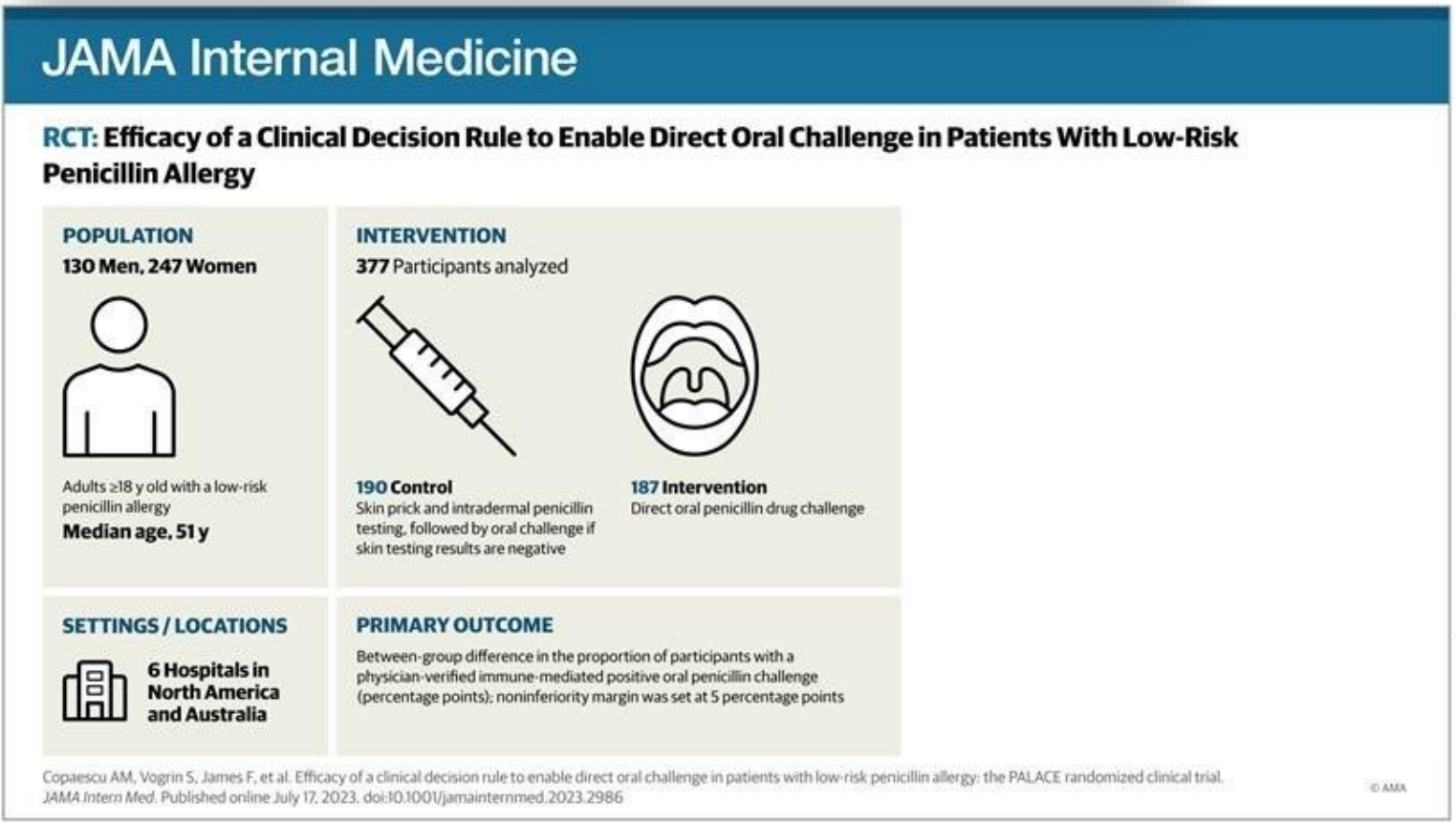


Figure. PEN-FAST Penicillin Allergy Clinical Decision Rule

PEN	Penicillin allergy reported by patient	☐ *If yes, proceed with assessment*
F	Five years or less since reaction[a]	☐ **2 points**
A	Anaphylaxis or angioedema	
	OR	☐ **2 points**
S	Severe cutaneous adverse reaction[b]	
T	Treatment required for reaction[a]	☐ **1 point**
		☐ **Total points**

Interpretation

Points	
0	**Very low risk** of positive penicillin allergy test <1% (<1 in 100 patients reporting penicillin allergy)
1-2	**Low risk** of positive penicillin allergy test 5% (1 in 20 patients)
3	**Moderate risk** of positive penicillin allergy test 20% (1 in 5 patients)
4-5	**High risk** of positive penicillin allergy test 50% (1 in 2 patients)

Digestif – Quid *D. fragilis* et *B. hominis* ?

Contents lists available at ScienceDirect

Clinical Microbiology and Infection

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Original article

The clinical significance of *Dientamoeba fragilis* and *Blastocystis* in human stool—retrospective cohort study

David Shasha [1, 2, 3, *], Daniel Grupel [4], Orit Treigerman [1], George Prajgrod [1], Yael Paran [2, 3], Dror Hacham [1], Ronen Ben-Ami [2, 3], Dov Albukrek [1], Galia Zacay [1, 3]

[1] *Head Office, Medical Division, Meuhedet Health Services, Tel Aviv, Israel*
[2] *Infectious Disease Unit, Tel-Aviv Sourasky Medical Center, Tel Aviv, Israel*
[3] *Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel*
[4] *Department of Clinical Microbiology and Infectious Diseases, Hadassah-Hebrew University Medical Center, Jerusalem, Israel*

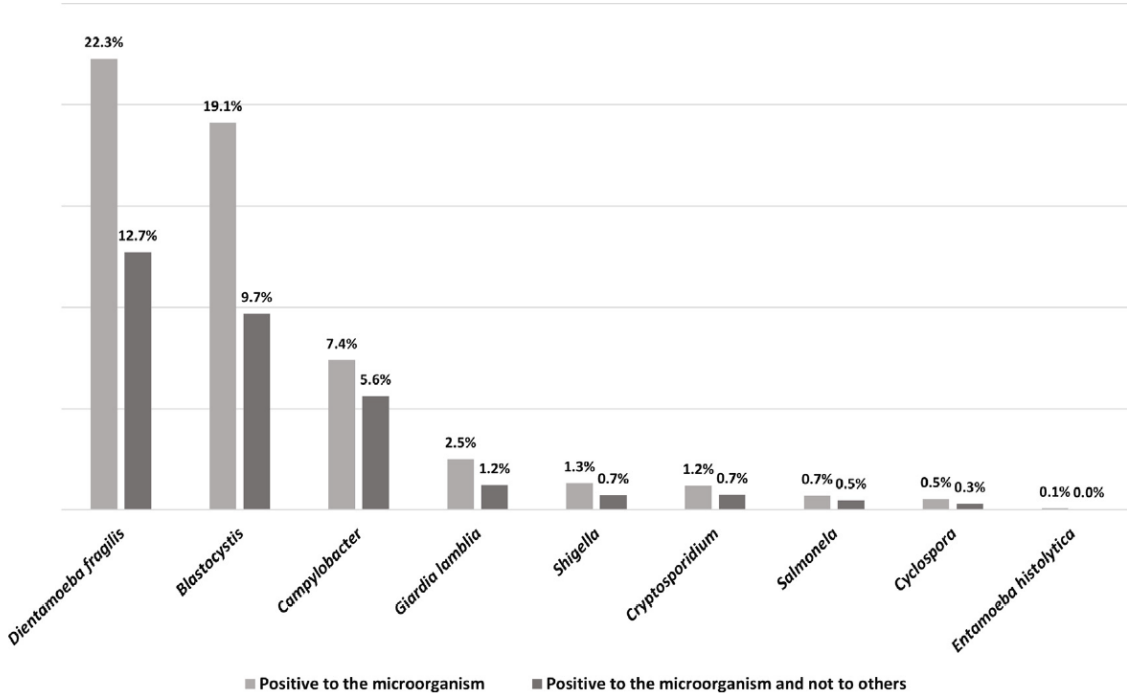


Table 3
Outcomes during the 60 d after stool PCR test (compared with negative PCR)

PCR-stool test result		Positive to Bs only		Positive to DF only		Positive to other microorganism[g] and negative to Bs or DF	
Symptoms[a]	Crude OR[e] (CI)	0.9	(0.81–0.998)	0.9	(0.83–0.99)	0.9	(0.82–0.99)
	Adjusted OR[f] (CI)	0.92	(0.83–1.02)	0.89	(0.81–0.97)	0.9	(0.81–0.99)
Referrals[b]	Crude OR[e] (CI)	0.84	(0.75–0.93)	0.94	(0.86–1.03)	0.83	(0.75–0.91)
	Adjusted OR[f] (CI)	0.84	(0.75–0.94)	0.93	(0.85–1.01)	0.83	(0.75–0.92)
Symptomatic treatment[c]	Crude OR[e] (CI)	0.89	(0.76–1.04)	0.73	(0.64–0.84)	0.66	(0.56–0.76)
	Adjusted OR[f] (CI)	0.88	(0.75–1.03)	0.82	(0.71–0.94)	0.73	(0.62–0.85)
Empiric antibiotic treatment[d]	Crude OR[e] (CI)	0.89	(0.76–1.03)	0.83	(0.73–0.94)	6.99	(6.38–7.65)
	Adjusted OR[f] (CI)	0.88	(0.75–1.02)	0.86	(0.75–0.98)	7.46	(6.79–8.20)

Bs, Blastocystis species; DF, Dientamoeba fragilis; SES, socio-economic status.
[a] Composite symptoms: abdominal pain, diarrhoea, and diagnosis of irritable bowel syndrome.
[b] Composite referrals: imaging, endoscopy, consultation with gastroenterologist, lab tests: stool PCR, calprotectin, anti-TTG, and helicobacter pylori.
[c] Symptomatic treatment: antiemetic, anti-diarrhoea, inflammatory bowel disease symptomatic treatment, fibres, probiotics, and carbon preparations.
[d] Metronidazole, tinidazole, macrolides, fluoroquinolones (in case of positive test result to other microorganisms, the antibiotic treatment cannot be defined as "empiric").
[e] Calculated using logistic regressions with the outcome as a single independent variable.
[f] Calculated using logistic regressions, adjusted for age group, sex, sector, SES, and chronic conditions that were associated with the symptoms in univariate analysis.
[g] Other microorganisms: *Campylobacter, Cryptosporidium, Cyclospora, Entamoeba histolytica, Giardia lamblia, Salmonella*, and *Shigella*.

- Rétrospective observationnelle
- 27 918 patients

Stewardship – IA

Antimicrobial Stewardship & Healthcare Epidemiology

Commentary

All aboard the ChatGPT steamroller: Top 10 ways to make artificial intelligence work for healthcare professionals

Lemuel R. Non MD

Table 1. Sample prompts for ChatGPT

What for?	Sample prompt
Copy-editing, proofreading, rewriting, and summarizing text	"Assume you're a physician copy-editing our note, rewrite the following text in paragraphs" "Proofread this:" "Copy-edit this:" "Summarize the following text in 1 paragraph"
Creating letters and other documents	"Generate an excuse letter for a patient who is seen today in our clinic. She needs to be excused for 1 week"
Creating easy-to-understand script for communicating a medical topic	"How can I explain, in an empathic way, that prescribing antibiotics for bronchitis is not a good thing?" "Generate an easy-to-understand and compassionate script for a patient about why antibiotics are harmful in viral upper respiratory infections"
Generating content for patients	"Generate an easy-to-understand patient information on multidrug resistant bacteria in Spanish"
As a quick reference	"Does eravacycline have anaerobic coverage? Only provide responses if 100% certain" "What antibiotics can I use for Acinetobacter bacteremia? Only provide responses if 100% certain"
Creating PowerPoint slides and generating images	"Generate 2 PowerPoint slides from the following text:" "Generate a cartoon of a bacteria developing resistance to an antibiotic"
Data analysis and visualization	"Perform Chi square analysis on this dataset" "Visualize the dataset" (if you want the chatbot to determine the best graph for it) or "Visualize the dataset into bar graphs"
Medical quiz generator	"Generate 5 board exam-type questions on *Clostridium difficile*. The question should appear one at a time"
Journal club assistance	

ChatGPT

Here are the cartoon illustrations depicting the concept of antibiotic resistance.

Clinical Infectious Diseases

VIEWPOINTS

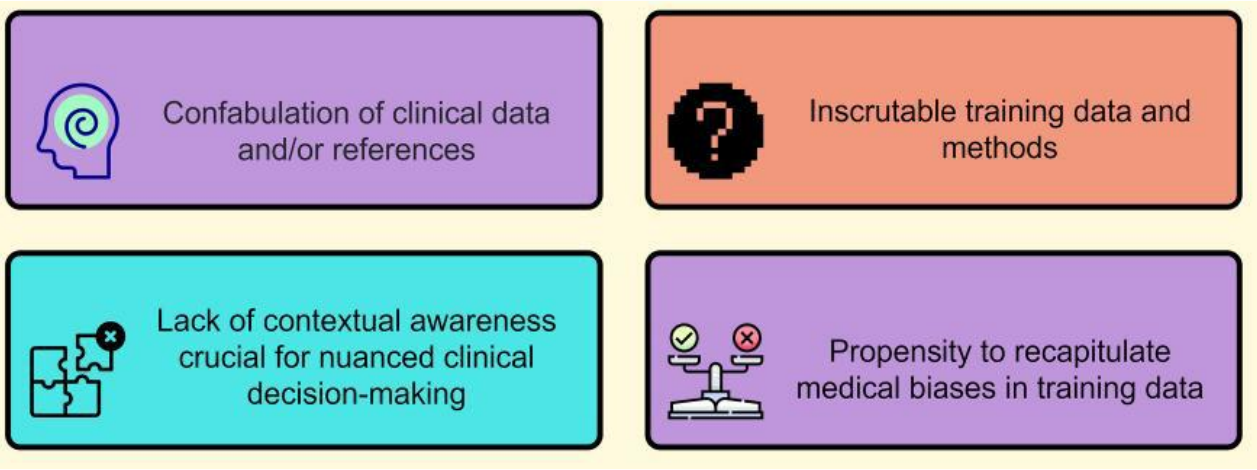
IDSA Infectious Diseases Society of America

hivma hiv medicine association

OXFORD

Black Box Warning: Large Language Models and the Future of Infectious Diseases Consultation

Ilan S. Schwartz,[1] Katherine E. Link,[2,3] Roxana Daneshjou,[4,5] and Nicolás Cortés-Penfield[6]



Hygiène – Mug : bug or hug ?

CHRISTMAS 2023: CHAMPAGNE PROBLEMS

Bug in a mug: are hospital coffee machines transmitting pathogens?

For many, coffee is the elixir of life. But is it also a cradle of life? **Sarah Victoria Walker and colleagues** *peer into the depths of the hospital coffee machine*

Sarah Victoria Walker, [1,2] Alessa Lalinka Boschert, [2] Martina Wolke, [2] Wolfgang A Wetsch [3,4]

thebmj

Hug in a mug

To our great relief, despite their potential for pathogen origins in nosocomial outbreaks, a general ban on coffee makers doesn't seem necessary. Commensal species—the majority of detected species—are

Table 2 | Overview of typical/atypical pathogens detected from sample sites

	Typical pathogens		Atypical pathogens		*P* value
	Home	Hospital	Home	Hospital	
Drip tray	5	15	41	111	1
Outlet	2	8	24	53	0.72
Buttons	1	1	15	40	0.49
Outer water tank	0	5	13	54	0.58
Inner water tank	0	1	34	72	1
Total	8	30	127	330	0.45


Merci pour votre attention !

Méthodologie – Surinterprétation études diagnostiques

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Clinical Microbiology and Infection

journal homepage: www.clinicalmicrobiologyandinfection.com

Original article

Over-interpretation of findings in diagnostic accuracy studies of infectious diseases

Solange Bramer [1], Ho Yee Cheung [2], Wesley Do [2], Mariska M.G. Leeflang [3,*]

- 120 études d'évaluation de méthode diagnostique

Table 2
Forms of actual over-interpretation in included studies

Forms of actual over-interpretation	Number of studies (%)
Discrepancy between study aims and conclusions	23 (19)
Discrepancy between abstract and main text	
More positive conclusions in abstract than main text	25 (21)
Abstract only showed subset of results in main text	10 (8)
Favourable or promising conclusion in main text not justified	34 (28)
Studies with at least one form of actual over-interpretation	63 (53)

Table 4
Forms of potential over-interpretation in included studies

Practices leading to potential over-interpretation	Studies include n (%)
Role of diagnostic test unclear or not stated	92 (77)
Absent or unclear null hypothesis	115 (96)
No sample size calculation	109 (91)
Absent or unclear sampling method	48 (40)
Absent flowchart of study participants	87 (73)
Determination of index test positivity threshold not stated	27 (23)
Confidence intervals not reported	39 (32)
Studies with at least one form of potential over-interpretation	120 (100)

What researchers can do to reduce the over-interpretation of study results

1) **Define in the study protocol**:
   a. **The foreseen role of the index test(s)**: by specifying where in clinical practice the index test(s) are expected to be useful, researchers provide information necessary to judge the relevance of the included participants and the requirements of the index test(s).
   b. **A null hypothesis and required sample size**: formulating a null hypothesis and sample size supports critical thinking regarding the requirements of the index test(s) to consider them sufficiently accurate.
   c. **The sampling method**: the sampling method directly influences both the external and internal validity of a study; the limited validity of a study also limits the conclusions that one may draw from a study.
   d. **Handling of the index test(s) and reference standard**: these are important quality characteristics that may lead to bias.
   e. **Specification of analyses, including subgroups and dealing with missing values**: by not specifying the analyses and the data to go into the analyses beforehand, researchers provide themselves the liberty to do many *post hoc* analyses, which may lead to the practice of selection the most positive *post hoc* analyses only.
2) **Consider in the study manuscript**:
   a. **The use of reporting guidelines**: the Standards for Reporting of Diagnostic Accuracy checklist supports authors of diagnostic accuracy studies to report their studies transparently and completely [27].
   b. **Check the manuscript for discrepancies**: this may prevent discrepancies between abstract and main text, and between aim and conclusion and between results and conclusion.
   c. **Explain the results of the analyses in the context of the expected role of the test**: explaining how, for example, a test with a sensitivity of 80% and a specificity of 80% may work out in a hypothetical population with a pre-test probability that is representative for clinical practice, may show how a test may lead to too many false positives or false negatives or how a test may fulfil its requirements. There is a huge variation in clinical settings, so it is important to explain how the interpretation of the test may vary depending on the clinical setting.