# Best-of biblio en infectiologie

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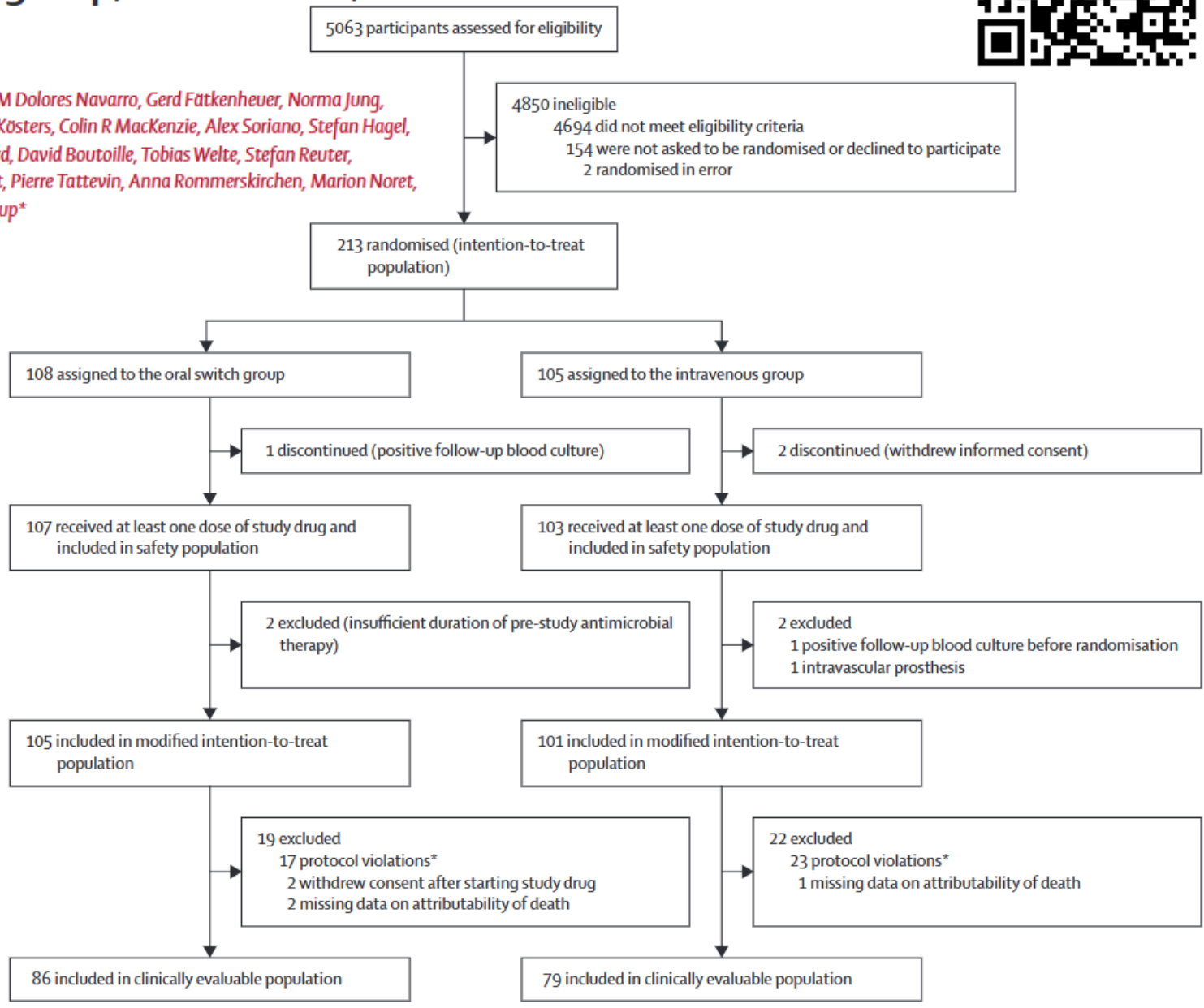
# Bactériologie
# &
# Antibiothérapie

# 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**

- Essai randomisé de non-infériorité européen
- Efficacité et sureté d'un relai oral dans les bactériémies à *S. aureus*

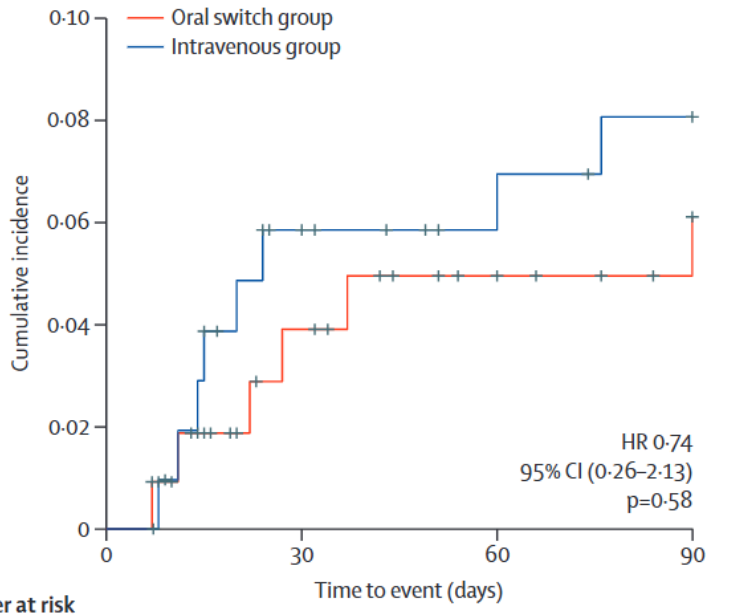
- **Inclusion** : >18 ans, hémoculture positive à S. aureus, 5-7 jours d'antibiothérapie IV adaptée, sans bactériémie persistante
- **Exclusion** : Bactériémie compliquée (foyer profond, sepsis), bactériémie >72h, fièvre à l'inclusion, cathéter non ablaté après 4 jours, comorbidité à risque de complication



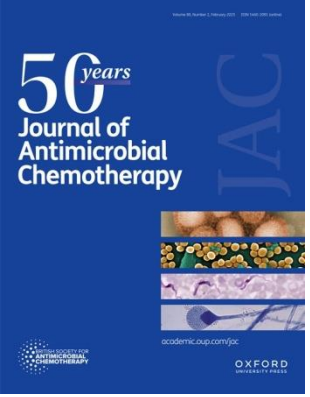
# Efficacy and safety of an early oral switch in low-risk *Staphylococcus aureus* bloodstream infection (SABATO)

- Age médian : 64,4 et 62,6 ans
- 2/3 bactériémies liées au cathéter
- 2/3 échographie cardiaque dans les 7 jours
- Durée d'antibiothérapie avant inclusion : 6j

- ATB IV : céfazoline (44%), cloxacilline (43%), vancomycine (7%)
- ATB PO : cotrimoxazole (58%), clindamycine (32%), linézolide (8%)




| | Intention-to-treat population | | |
|---|---|---|---|
| | Oral switch group (n=108) | Intravenous group (n=105) | Percentage-point difference (95% CI) |
| **Primary endpoint** | | | |
| SAB-related complication within 90 days | 14 (13%) | 13 (12%) | 0·7 (–7·8 to 9·1) |
| Reason primary outcome was met | | | |
| SAB-related complication | 6 (6%) | 8 (8%) | –2·1 (–9·7 to 5·5) |
| Relapsing SAB | 3 (3%) | 4 (4%) | –1·0 (–6·8 to 4·7) |
| Deep-seated infection with *S aureus* | 5 (5%) | 8 (8%) | –3·0 (–10·4 to 4·4) |
| Death attributable to SAB | 2 (2%) | 0 | 1·9 (–1·6 to 5·3) |
| Missing outcome data | 8 (7%) | 5 (5%) | 2·7 (–4·7 to 10·0) |
| Attributability of death non-evaluable | 3 (3%) | 1 (1%) | 1·8 (–2·7 to 6·4) |
| **Secondary endpoints** | | | |
| Length of hospital stay from SAB onset, days | 12 (9–19) | 16 (10–19) | –2 (–4 to 0); p=0·043* |
| Participants with complications of intravenous administration† | | | |
| Any complication | 9 (9%); 11 | 17 (17%); 5 | –7·9 (–17·6 to 1·9) |
| Chemical phlebitis | 7 | 9 | –2·1 (–10·1 to 5·9) |
| Infectious thrombophlebitis or phlebitis | 0 | 2 | –1·9 (–5·5 to 1·7) |
| Other‡ | 2 | 6 | –3·9 (–9·9 to 2·2) |
| Participants with *Clostridium difficile* infection§ | 2 (2%); 8 | 2 (2%); 7 | –0·1 (–3·8 to 3·6) |
| Survival | | | |
| 14 days | 98·1% (1·3); 2 | 100·0% (0); 0 | –1·9 (–4·5 to 0·7) |
| 30 days | 94·3% (2·3); 6 | 96·0% (2·0); 4 | –1·7 (–7·6 to 4·2) |
| 90 days | 83·6% (3·6); 17 | 89·0% (3·1); 11 | –5·4 (–14·8 to 4·0) |




JOURNAL ARTICLE

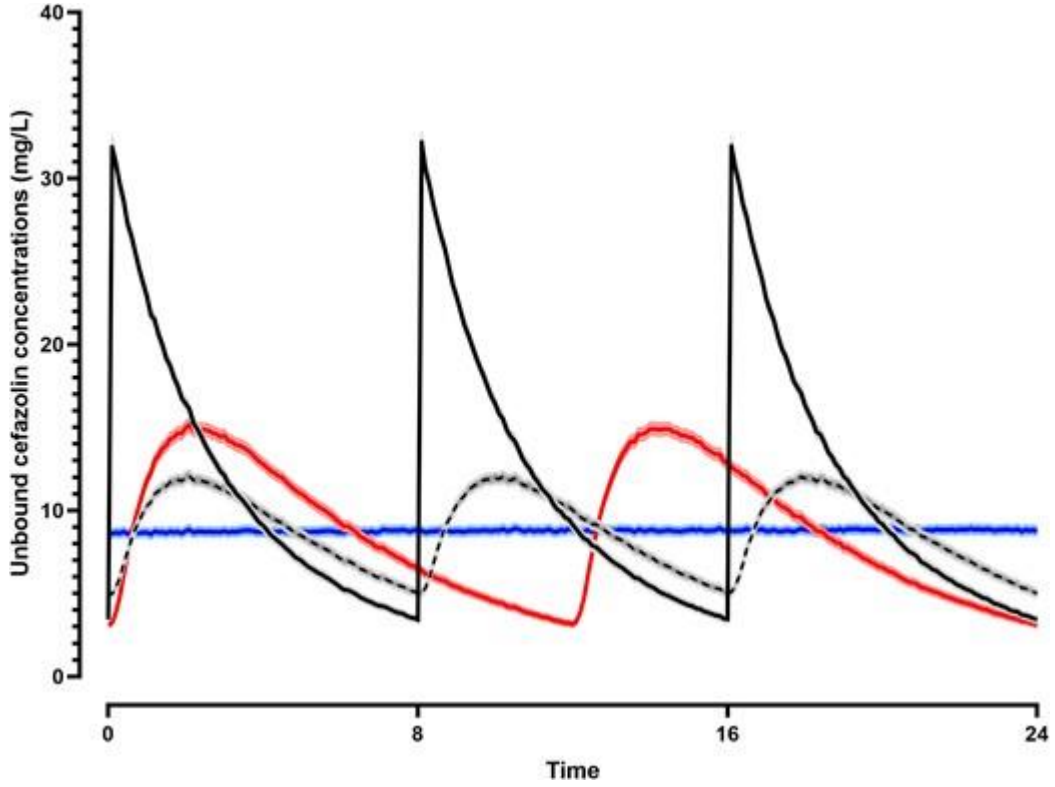
# Safety, tolerability and pharmacokinetics of subcutaneous cefazolin as an alternative to intravenous administration

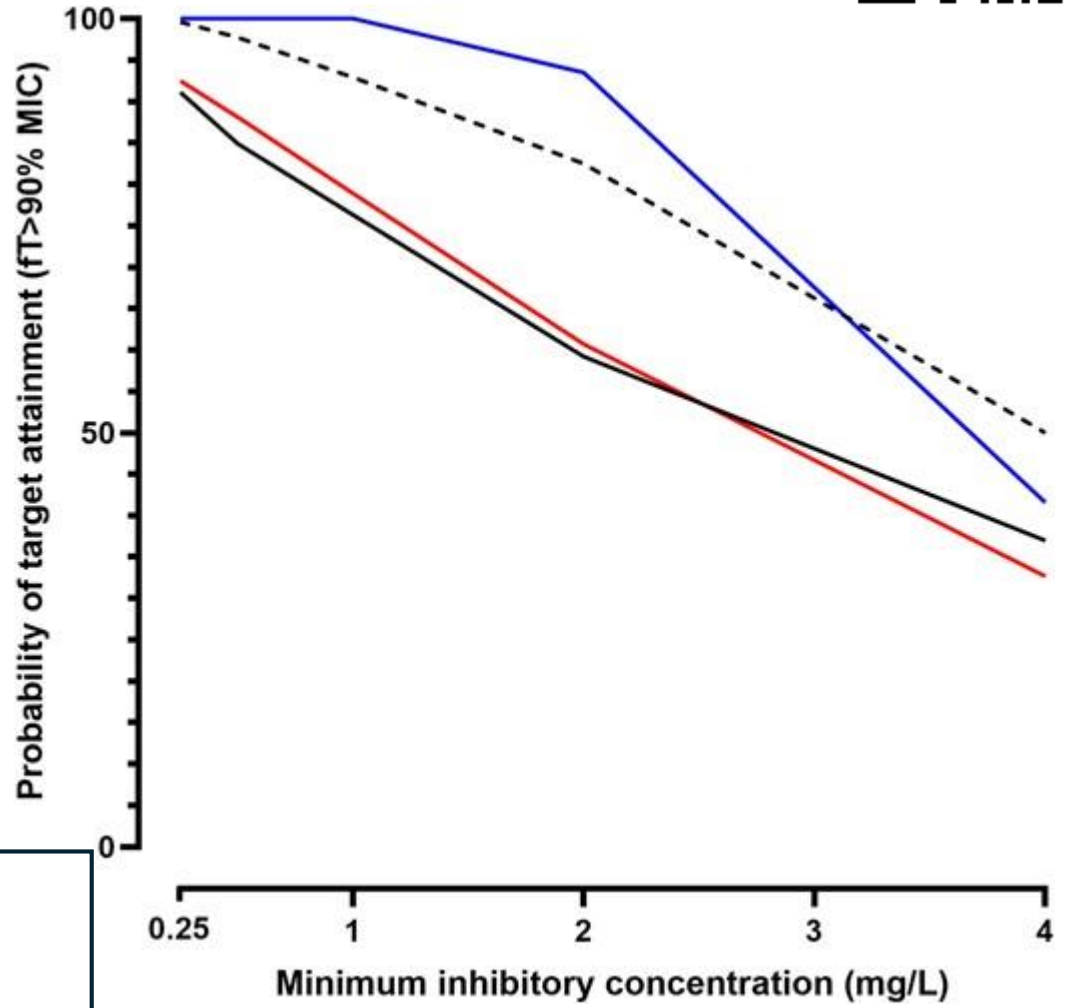
Fionnuala Murray, Okhee Yoo, Samuel Brophy-Williams, Matthew Rawlins, Steven C Wallis, Jason A Roberts, Edward Raby, Sam Salman, Laurens Manning

- Étude pharmacocinétique
- Évaluation du profil pharmacocinétique et de la sureté de l'administration de Céfazoline en SC

- 15 patients stables inclus (175 dosages)
  - 14 IPPPD
  - 1 endocardite
- **BMI médian** : 29,7kg/m² (27,1-35,6)
- **Créatininémie** : 75µmol/L (58-122)
- **Clairance** : 98mL/min (66-153)

# Safety, tolerability and pharmacokinetics of subcutaneous cefazolin as an alternative to intravenous administration




- **Tolérance** :
  - 5/15 douleur légère à l'injection, 1/15 douleur modérée
  - Œdème léger au point d'injection (régression en 2h)
  - Absence d'érythème, absence d'événement indésirable sévère

JBJI Journal of Bone and Joint Infection Open Access

# Dosing and treatment duration of suppressive antimicrobial therapy in orthopedic implant infections: a cohort study

Jaap L. J. Hanssen[1], Robert J. P. van der Wal[2], Henrica M. J. van der Linden[2], Joffrey van Prehn[3], Henk Scheper[1], and Mark G. J. de Boer[1,4]

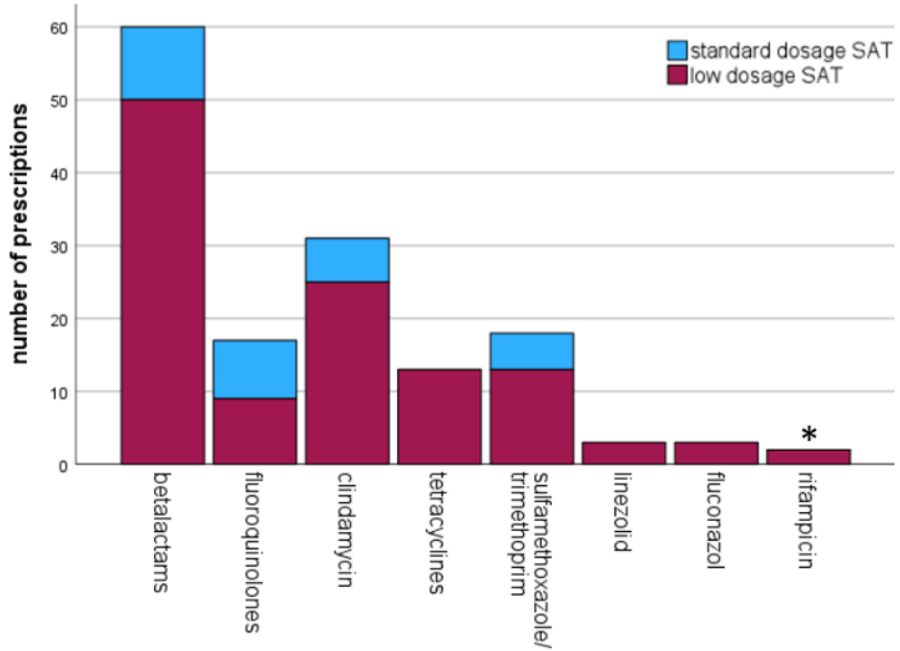
- Cohorte rétrospective monocentrique entre 2011-2022
- **Inclusion** : infection de prothèse, d'ostéosynthèse ou de matériel rachidien bénéficiant d'une antibiothérapie suppressive
- **Exclusion** : âge <16ans, suivi <1 mois, diagnostic retenu non concordant avec les définitions de l'EBJIS

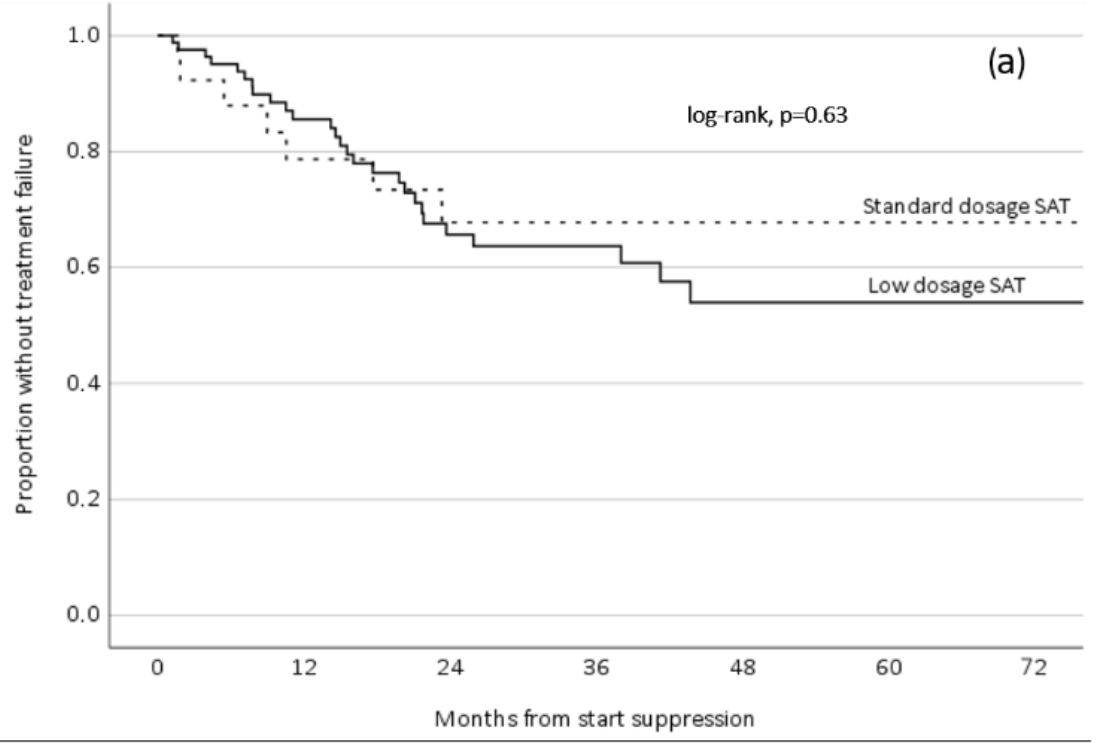
- 108 patients analysés
  - DAIR (89/108)
  - 1 à 2 semaines ttt curatif IV
  - 4 à 11 semaines ttt curatif oral

| | Standard-dosage SAT | Low-dosage SAT |
|---|---|---|
| Amoxicillin | 1000 mg t.i.d. or q.i.d. | 500 mg b.i.d., t.i.d. or q.i.d.<br>1000 mg b.i.d |
| Flucloxacillin | 1000 mg q.i.d. | 500 mg b.i.d, t.i.d. or q.i.d.<br>1000 mg b.i.d. or t.i.d. |
| Amoxicillin / clavulanic avid | 1250 mg t.i.d. | 625 mg b.i.d |
| Pheneticillin | 1000 mg q.i.d. | 500 mg q.i.d. |
| Ciprofloxacin | 500–750 mg b.i.d. | 500–750 mg q.d. |
| Levofloxacin | 500 mg b.i.d. | 250–500 mg q.d. |
| Moxifloxacin | 400 mg q.d. | – |
| Clindamycin | 600 mg t.i.d. | 300 mg b.i.d. or t.i.d.<br>600 mg b.i.d. |
| Trimethoprim / sulfamethoxazole | 960 mg b.i.d. | 480 mg q.d or b.i.d. 960 mg q.d |
| Doxycycline | 100 mg b.i.d. | 100 mg q.d. |
| Linezolid | 600 mg b.i.d. | 150–600 mg q.d. |
| Rifampicin* | 450–600 mg b.i.d. | 300 mg q.d. |
| Fluconazole | 200 mg b.i.d. | 200 mg q.d. |

The abbreviations used in the table are as follows: SAT – suppressive antimicrobial therapy; q.d. – once daily; b.i.d. – twice daily; t.i.d. – three times a day; q.i.d. – four times a day. * In combination with levofloxacin.

# Dosing and treatment duration of suppressive antimicrobial therapy in orthopedic implant infections: a cohort study




- Suivi médian : 21,2 mois
- Suppressif arrêté chez 25 patients, après 26,4 mois
  - Dont 5 non opérés
  - Suivi supplémentaire 21 mois
  - 1 échec

| | All patients $n = 34$ | Low-dosage SAT $n = 27$ | Standard-dosage SAT $n = 7$ |
|---|---|---|---|
| Clinical outcome | | | |
| New surgery of infected joint, *n* (%) | 18 (53) | 12 (44) | 6 (86) |
| Admission for IV antibiotics | 3 (9) | 3 (11) | 0 |
| Uncontrolled symptoms | 4 (12) | 3 (11) | 1 (17) |
| Fistula | 6 (18) | 6 (22) | 0 |
| Increasing SAT to standard dosage | 2 (6) | 2 (7) | 0 |
| Relapse after stopping SAT | 1 (3) | 1(4) | 0 |
| Microbiological finding at time of failure | | | |
| Relapse with index pathogen | 11 (32) | 8 (30) | 3 (43) |
| Development of SAT resistance | 4 (12) | 4 (15) | 0 |
| New infection with different pathogen | 9 (26) | 8 (30) | 1 (14) |
| Culture negative | 7 (21) | 5 (19) | 2 (29) |
| No tissue for cultures obtained | 7 (21) | 6 (22) | 1 (14) |

The abbreviations used in the table are as follows: SAT – suppressive antimicrobial therapy.

# Oral gepotidacin versus nitrofurantoin in patients with uncomplicated urinary tract infection (EAGLE-2 and EAGLE-3): two randomised, controlled, double-blind, double-dummy, phase 3, non-inferiority trials

*Florian Wagenlehner, Caroline R Perry, Thomas M Hooton, Nicole E Scangarella-Oman, Helen Millns, Marcy Powell, Emily Jarvis, Jeremy Dennison, Amanda Sheets, Deborah Butler, John Breton, Salim Janmohamed*

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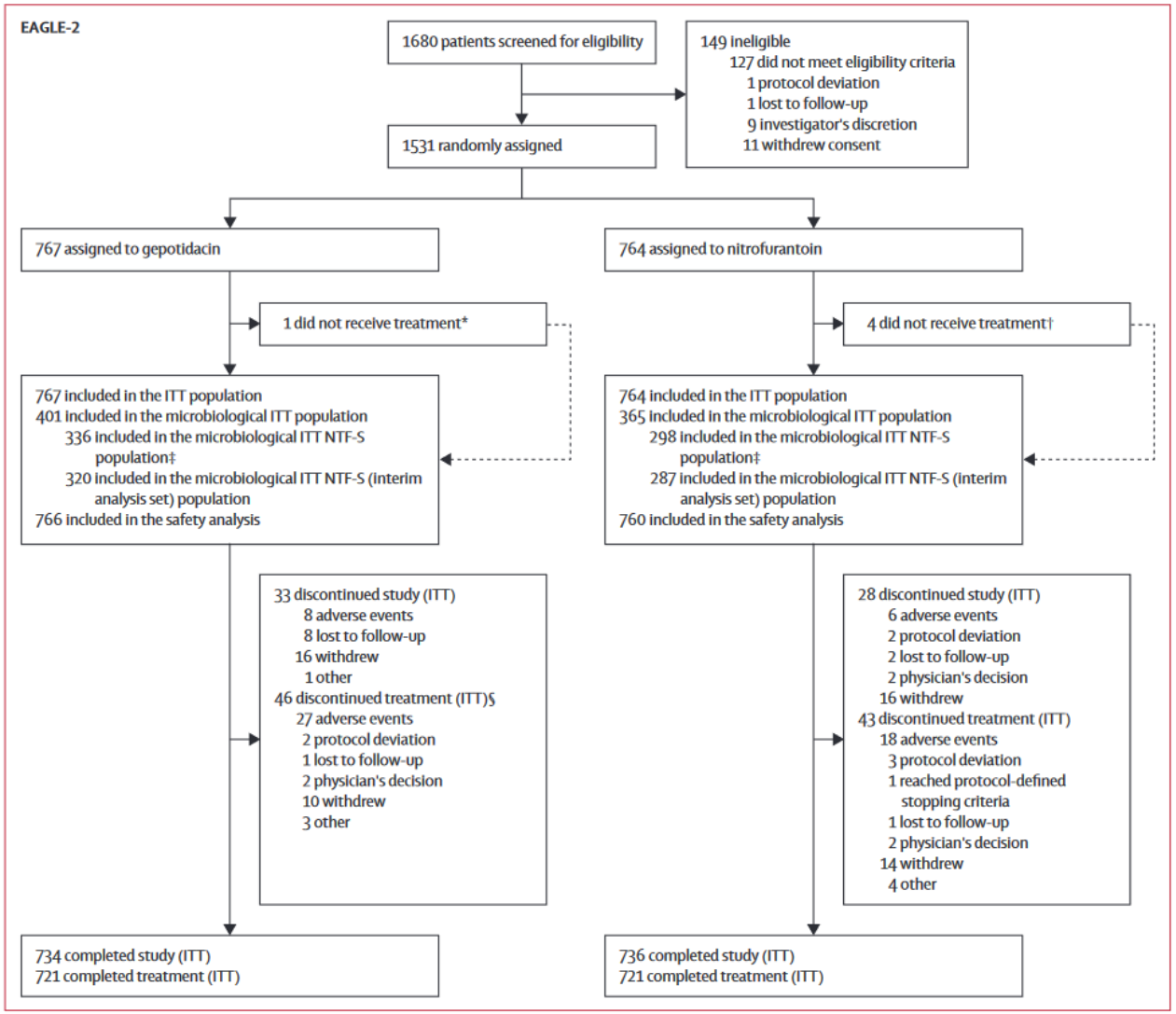
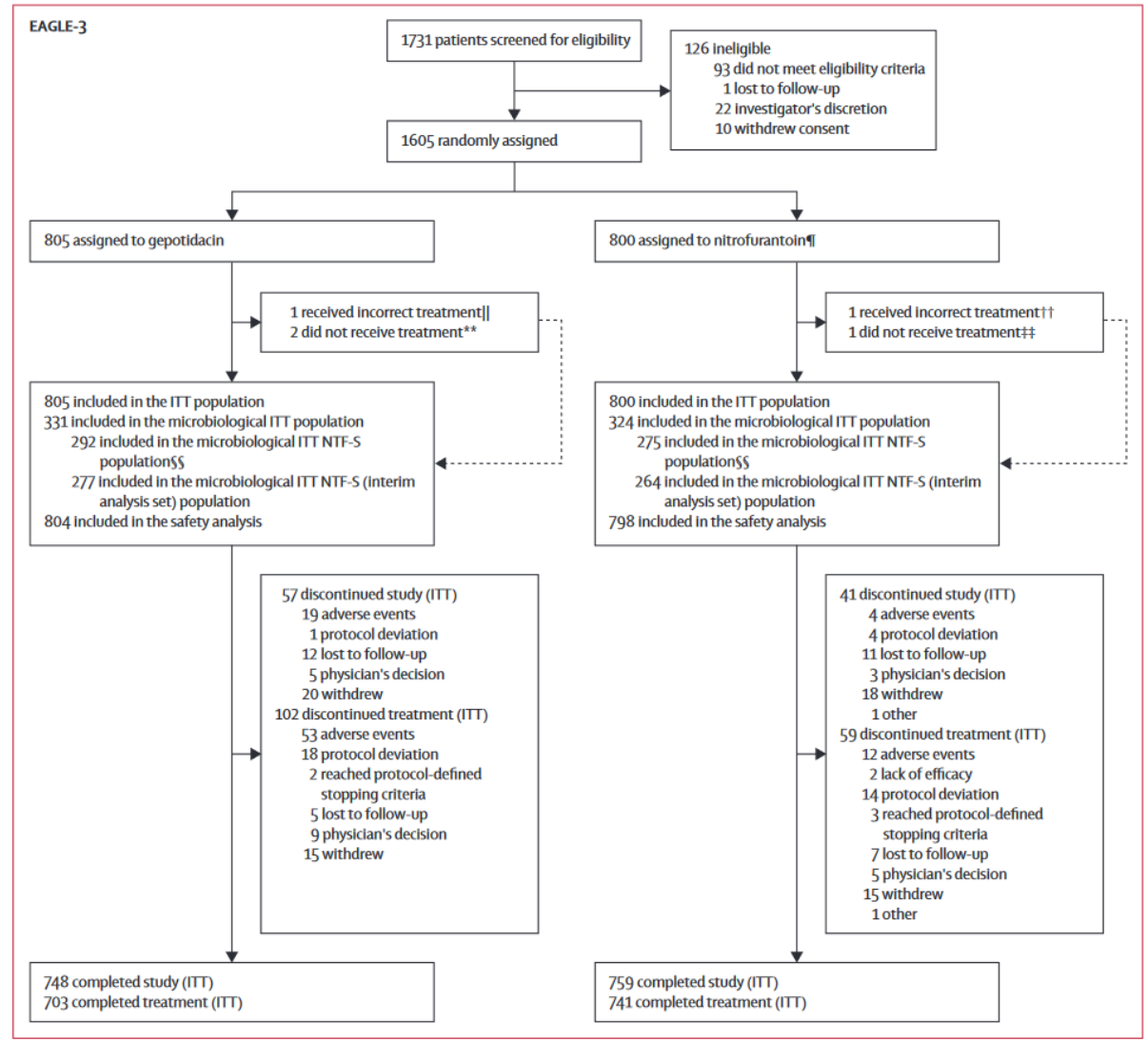

EAGLE-2
1680 patients screened for eligibility
149 ineligible
127 did not meet eligibility criteria
1 protocol deviation
1 lost to follow-up
9 investigator's discretion
11 withdrew consent
1531 randomly assigned
767 assigned to gepotidacin
764 assigned to nitrofurantoin
1 did not receive treatment*
4 did not receive treatment†
767 included in the ITT population
401 included in the microbiological ITT population
336 included in the microbiological ITT NTF-S population‡
320 included in the microbiological ITT NTF-S (interim analysis set) population
766 included in the safety analysis
764 included in the ITT population
365 included in the microbiological ITT population
298 included in the microbiological ITT NTF-S population‡
287 included in the microbiological ITT NTF-S (interim analysis set) population
760 included in the safety analysis
33 discontinued study (ITT)
8 adverse events
8 lost to follow-up
16 withdrew
1 other
46 discontinued treatment (ITT)§
27 adverse events
2 protocol deviation
1 lost to follow-up
2 physician's decision
10 withdrew
3 other
28 discontinued study (ITT)
6 adverse events
2 protocol deviation
2 lost to follow-up
2 physician's decision
16 withdrew
43 discontinued treatment (ITT)
18 adverse events
3 protocol deviation
1 reached protocol-defined stopping criteria
1 lost to follow-up
2 physician's decision
14 withdrew
4 other
734 completed study (ITT)
721 completed treatment (ITT)
736 completed study (ITT)
721 completed treatment (ITT)


EAGLE-3
1731 patients screened for eligibility
126 ineligible
93 did not meet eligibility criteria
1 lost to follow-up
22 investigator's discretion
10 withdrew consent
1605 randomly assigned
805 assigned to gepotidacin
800 assigned to nitrofurantoin¶
1 received incorrect treatment||
2 did not receive treatment**
1 received incorrect treatment††
1 did not receive treatment‡‡
805 included in the ITT population
331 included in the microbiological ITT population
292 included in the microbiological ITT NTF-S population§§
277 included in the microbiological ITT NTF-S (interim analysis set) population
804 included in the safety analysis
800 included in the ITT population
324 included in the microbiological ITT population
275 included in the microbiological ITT NTF-S population§§
264 included in the microbiological ITT NTF-S (interim analysis set) population
798 included in the safety analysis
57 discontinued study (ITT)
19 adverse events
1 protocol deviation
12 lost to follow-up
5 physician's decision
20 withdrew
102 discontinued treatment (ITT)
53 adverse events
18 protocol deviation
2 reached protocol-defined stopping criteria
5 lost to follow-up
9 physician's decision
15 withdrew
41 discontinued study (ITT)
4 adverse events
4 protocol deviation
11 lost to follow-up
3 physician's decision
18 withdrew
1 other
59 discontinued treatment (ITT)
12 adverse events
2 lack of efficacy
14 protocol deviation
3 reached protocol-defined stopping criteria
7 lost to follow-up
5 physician's decision
15 withdrew
1 other
748 completed study (ITT)
703 completed treatment (ITT)
759 completed study (ITT)
741 completed treatment (ITT)

- Design
  - Deux essais de phase 3 de non-infériorité (marge de -10 %) randomisés, multicentriques, en double aveugle et double placebo
  - 634 (EAGLE-2) + 567 (EAGLE-3) patients avec infection urinaire basse non compliquée
  - Gepotidacine 1500 mg/12 h vs nitrofurantoïne 100 mg/12 h
  - Critère de jugement : succès clinique et microbiologique

- Résultats
  - Non-infériorité de la gepotidacine dans EAGLE-2 et EAGLE-3 et supériorité dans EAGLE-3
  - Études arrêtées prématurément pour efficacité
  - Un peu plus d'effets secondaires sous gepotidacine (35 % vs 22 % dans EAGLE-2 et 35 % vs 25 % dans EAGLE-3), pas de différence en termes d'effets indésirables grave

| | EAGLE-2 | | | EAGLE-3 | | |
|---|---|---|---|---|---|---|
| | Gepotidacin (n=336) | Nitrofurantoin (n=298) | Total (n=634) | Gepotidacin (n=292) | Nitrofurantoin (n=275) | Total (n=567) |
| (Continued from previous page) | | | | | | |
| Qualifying uropathogens† | | | | | | |
| *Escherichia coli* | 305 (91%) | 268 (90%) | 573 (90%) | 261 (89%) | 252 (92%) | 513 (90%) |
| *Klebsiella pneumoniae* | 7 (2%) | 8 (3%) | 15 (2%) | 7 (2%) | 8 (3%) | 15 (3%) |
| *Klebsiella oxytoca/Raoultella ornithinolytica* | 2 (<1%) | 2 (<1%) | 4 (<1%) | 2 (<1%) | 2 (<1%) | 4 (<1%) |
| *Klebsiella aerogenes* | 0 | 2 (<1%) | 2 (<1%) | 2 (<1%) | 1 (<1%) | 3 (<1%) |
| *Klebsiella variicola* | 1 (<1%) | 0 | 1 (<1%) | 0 | 0 | 0 |
| *Citrobacter koseri* | 0 | 2 (<1%) | 2 (<1%) | 2 (<1%) | 3 (1%) | 5 (<1%) |
| *Citrobacter amalonaticus* group | 0 | 0 | 0 | 2 (<1%) | 0 | 2 (<1%) |
| *Citrobacter freundii* complex | 7 (2%) | 3 (1%) | 10 (1%) | 5 (2%) | 2 (<1%) | 7 (1%) |
| *Enterobacter cloacae* complex | 0 | 2 (<1%) | 2 (<1%) | 1 (<1%) | 2 (<1%) | 3 (<1%) |
| *Staphylococcus saprophyticus* | 6 (2%) | 7 (2%) | 13 (2%) | 9 (3%) | 7 (3%) | 16 (3%) |
| *Enterococcus faecalis* | 10 (3%) | 5 (2%) | 15 (2%) | 4 (1%) | 2 (<1%) | 6 (1%) |
| *Enterococcus faecium* | 1 (<1%) | 0 | 1 (<1%) | 0 | 0 | 0 |

Data are mean (SD) or n (%); percentages are calculated with non-missing data as the denominator. CrCl=creatinine clearance based on Cockcroft-Gault formula. NTF-S=nitrofurantoin-susceptible. *Recurrent infection is defined as a confirmed infection with at least one episode within 3 months before study entry, at least two episodes within 6 months before study entry, or at least three episodes within 12 months before study entry; †Patients with more than one uropathogen of the same species or group are counted once; qualifying uropathogens are listed in the appendix (p 3; ≥$10^5$ colony-forming units per mL).

***Table 1:*** **Demographic and baseline characteristics in the microbiological intention-to-treat NTF-S population**

| | EAGLE-2 | | EAGLE-3 | |
|---|---|---|---|---|
| | Gepotidacin (n=320) | Nitrofurantoin (n=287) | Gepotidacin (n=277) | Nitrofurantoin (n=264) |
| **Primary outcome** | | | | |
| Therapeutic success | 162 (50·6%) | 135 (47·0%) | 162 (58·5%) | 115 (43·6%) |
| Treatment difference (95% CI)* | 4·3% (−3·6 to 12·1) | .. | 14·6% (6·4 to 22·8) | .. |
| Z statistic for non-inferiority (boundary)† | 3·5554 (2·065) | .. | 5·8838 (2·098) | .. |
| One-sided p value for superiority (boundary)‡ | 0·1445 (0·019) | .. | 0·0003 (0·018) | .. |
| Therapeutic failure | 158 (49·4%) | 152 (53·0%) | 115 (41·5%) | 149 (56·4%) |
| Clinical success, microbiological failure | 48 (15·0%) | 52 (18·1%) | 26 (9·4%) | 52 (19·7%) |
| Clinical failure, microbiological success | 70 (21·9%) | 59 (20·6%) | 38 (13·7%) | 36 (13·6%) |
| Clinical failure, microbiological failure | 40 (12·5%) | 41 (14·3%) | 51 (18·4%) | 61 (23·1%) |
| Use of another antibiotic for uncomplicated UTI§ | 5 (1·6%) | 12 (4·2%) | 18 (6·5%) | 14 (5·3%) |

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

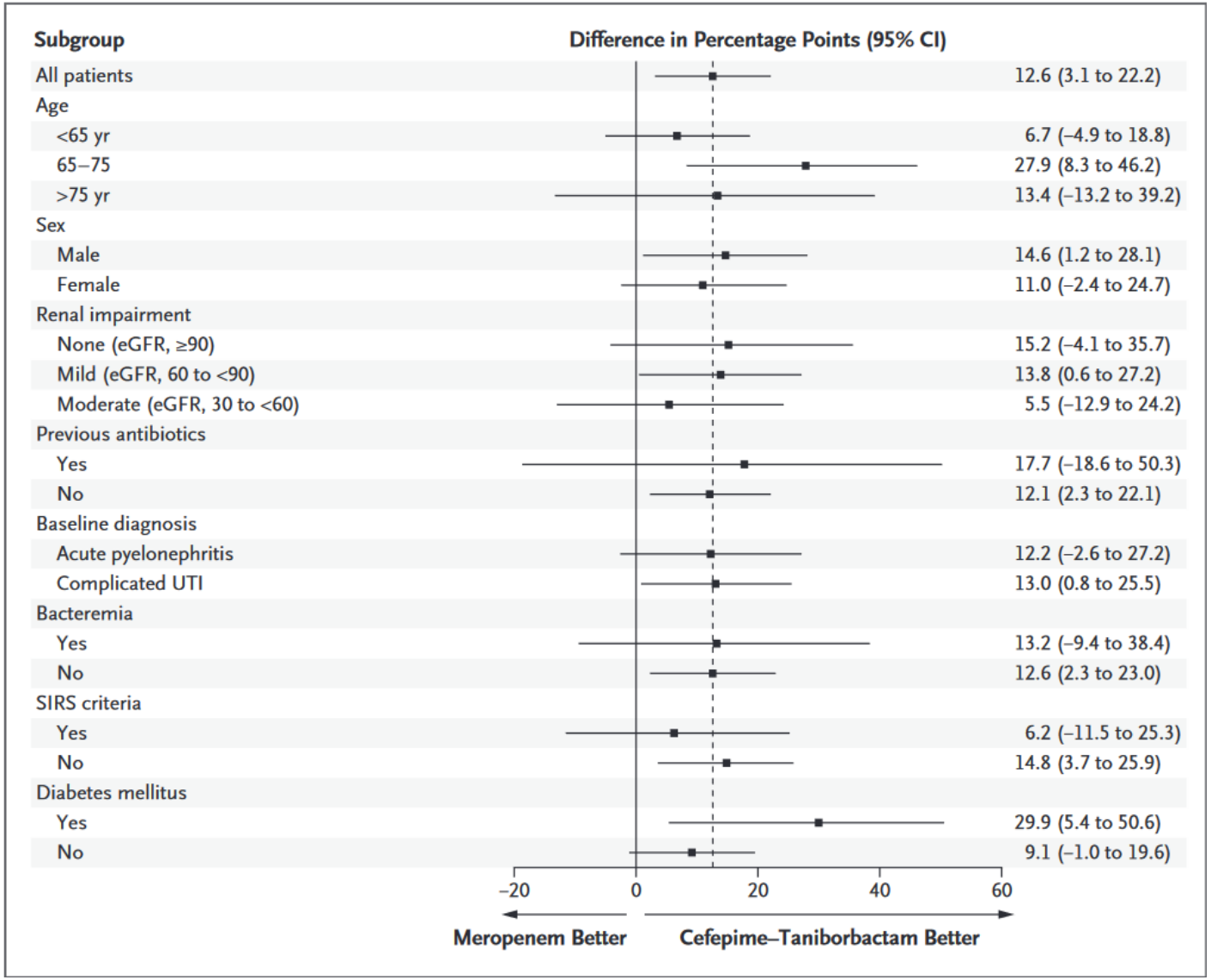
# Cefepime–Taniborbactam in Complicated Urinary Tract Infection

Florian M. Wagenlehner, M.D., Leanne B. Gasink, M.D., Paul C. McGovern, M.D., Greg Moeck, Ph.D., Patrick McLeroth, M.D., MaryBeth Dorr, Ph.D., Aaron Dane, M.Sc., and Tim Henkel, M.D., Ph.D., for the CERTAIN-1 Study Team*

## ABSTRACT

- <u>Design</u>
  - Essai de phase 3 de non-infériorité (marge de -15 %)
  - 436 patients hospitalisés pour infection urinaire compliquée*
  - Céfépime-taniborbactam 2 g-0,5 g/8 h vs méropénème 1 g/8 h
  - Critère de jugement : succès clinique et microbiologique

- <u>Résultats</u>
  - Non-infériorité démontrée et marge de supériorité atteinte pour le céfépime-taniborbactam (70,6 % vs 58,0 % soit +12,6 %, IC95% [3,1 – 22,2]) y compris lors du suivi tardif (J28-J35)
  - Proportion d'effets secondaires comparable (35,5 % vs 29,0 %, pas de différence en termes d'effets indésirables graves)




*Essentiellement IU sur matériel, exclusion des autres (notamment DFG < 30

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Original article

# A phase 3 randomized trial of sulopenem vs. ertapenem in patients with complicated intra-abdominal infections

Michael W. Dunne [1], Steven I. Aronin [2,*], Anita F. Das [3], Karthik Akinapelli [4], Jeanne D. Breen [5], Michael T. Zelasky [6], Sailaja Puttagunta [7]

- Design
  - Essai randomisé de phase 3 en double aveugle et double placebo multicentrique
  - 515 patients admis pour infection intra-abdominale compliquée traités par sulopénème IV puis PO vs ertapénème IV puis relais PO par [ciprofloxacine + métronidazole] ou amoxicilline – acide clavulanique
  - Marge de non-infériorité pré-établie à -10 %

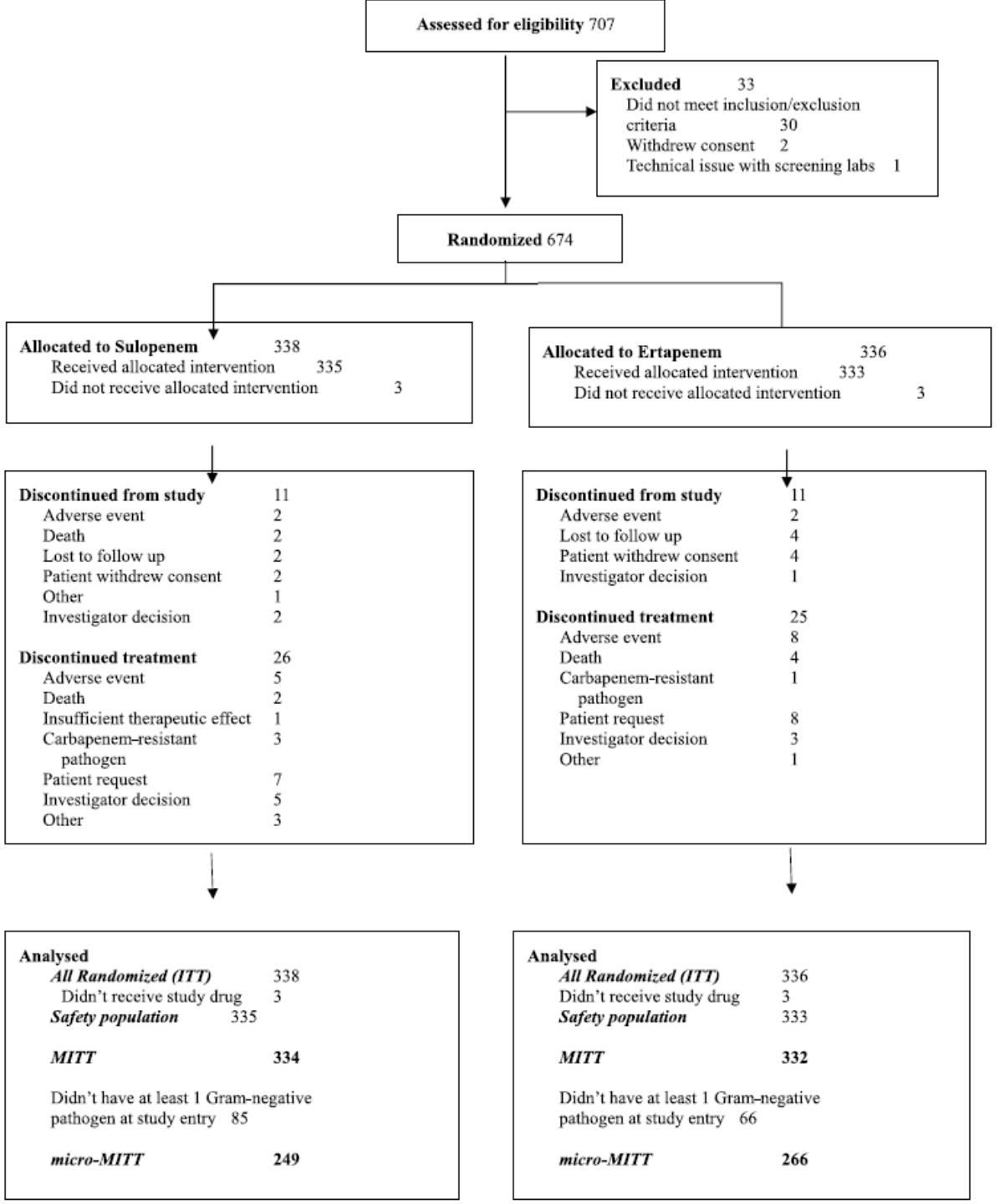


**Table 2**
Clinical response at TOC (FDA endpoint: day 28)

| Population/clinical response | Sulopenem *n/N* (%) | Ertapenem *n/N* (%) | Difference (95% CI) |
|---|---|---|---|
| Micro-MITT population | | | |
| Clinical success | 213/249 (85.5) | 240/266 (90.2) | −4.7 (−10.3 to 1.0) |
| Clinical failure | 27/249 (10.8) | 17/266 (6.4) | |
| Indeterminate | 9/249 (3.6) | 9/266 (3.4) | |
| ITT population | | | |
| Clinical success | 292/338 (86.4) | 300/336 (89.3) | −2.9 (−7.8 to 2.0) |
| Clinical failure | 32/338 (9.5) | 19/336 (5.7) | |
| Indeterminate | 14/338 (4.1) | 17/336 (5.1) | |
| MITT population | | | |
| Clinical success | 291/334 (87.1) | 299/332 (90.1) | −2.9 (−7.8 to 1.9) |
| Clinical failure | 32/334 (9.6) | 19/332 (5.7) | |
| Indeterminate | 11/334 (3.3) | 14/332 (4.2) | |
| CE-TOC population | | | |
| Clinical success | 265/283 (93.6) | 265/277 (95.7) | −2.0 (−5.7 to 1.7) |
| Clinical failure | 18/283 (6.4) | 12/277 (4.3) | |
| ME-TOC population | | | |
| Clinical success | 196/212 (92.5) | 212/222 (95.5) | −3.0 (−7.5 to 1.4) |
| Clinical failure | 16/212 (7.5) | 10/222 (4.5) | |

**Marge de non-infériorité non atteinte**

**Table 4**
Safety evaluation through final visit (safety population)

| AE category | Sulopenem (*N* = 335) *n* (%) | Ertapenem (*N* = 332) *n* (%) |
|---|---|---|
| Treatment-emergent AE | 87 (26.0) | 78 (23.4) |
| Any drug-related AE | 20 (6.0) | 17 (5.1) |
| IV drug-related | 12 (3.6) | 14 (4.2) |
| Oral drug-related | 13 (3.9) | 5 (1.5) |
| TEAE leading to discontinuation of study drug | 5 (1.5) | 7 (2.1) |
| TEAE leading to discontinuation from study | 2 (0.6) | 2 (0.6) |
| Any serious AE | 25 (7.5) | 12 (3.6) |
| Drug-related SAE | 2 (0.6) | 0 |
| SAE with an outcome of death | 4 (1.2) | 4 (1.2) |
| SAE leading to premature discontinuation of study | 3 (0.9) | 3 (0.9) |
| SAE leading to premature discontinuation from study | 2 (0.6) | 2 (0.6) |
| Any AE of severe intensity | 5 (0.7) | 5 (0.7) |
| TEAEs reported in ≥2% of patients in either treatment group by system organ class and preferred term[a] | | |
| Diarrhoea | 15 (4.5) | 8 (2.4) |
| Nausea | 12 (3.6) | 8 (2.4) |
| Postoperative wound infection | 4 (1.2) | 8 (2.4) |

**Deux fois plus d'effets secondaires graves avec le sulopénème mais seuls 2 liés au traitement**

*Clinical Infectious Diseases*

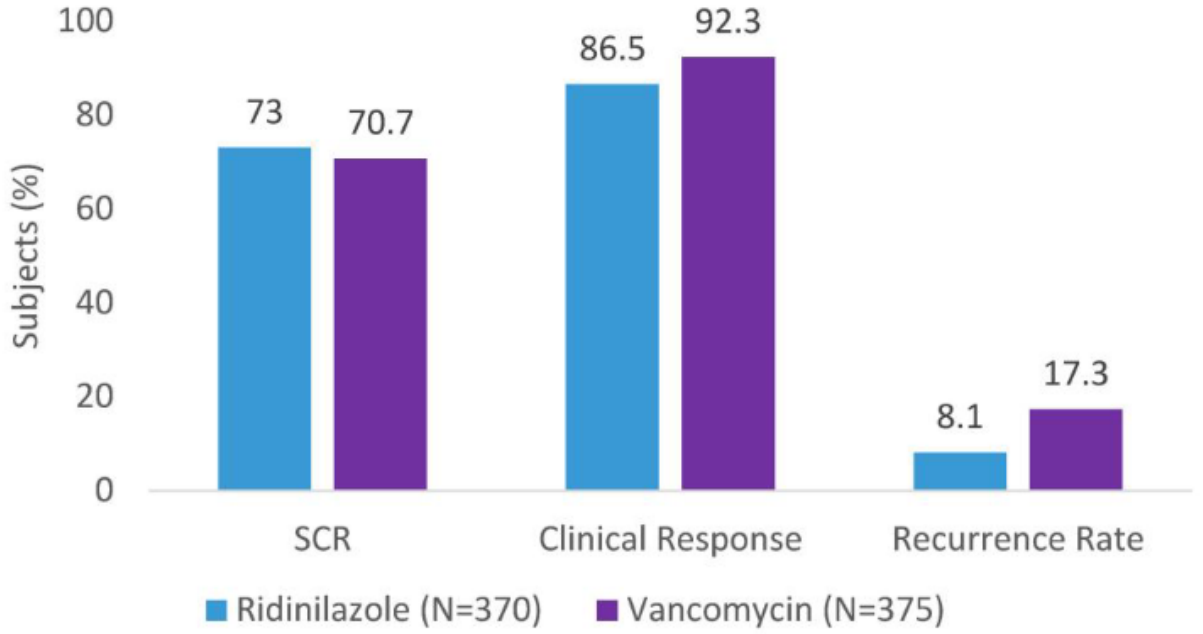
MAJOR ARTICLE

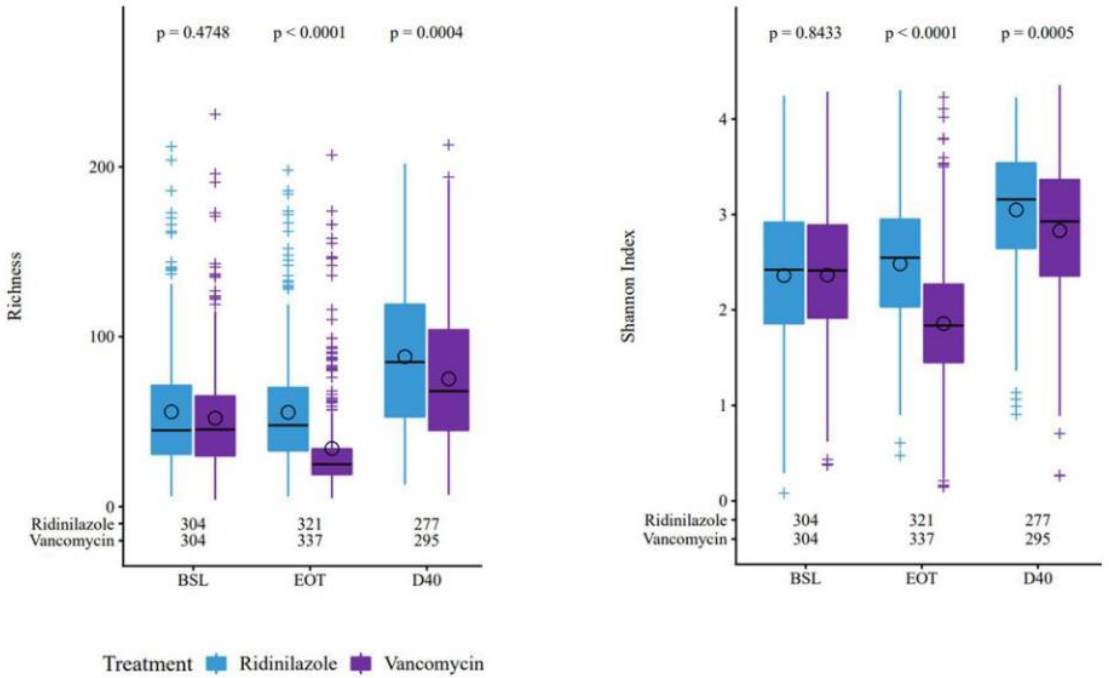
# A Randomized, Double-Blind, Phase 3 Safety and Efficacy Study of Ridinilazole Versus Vancomycin for Treatment of *Clostridioides difficile* Infection: Clinical Outcomes With Microbiome and Metabolome Correlates of Response

Pablo C. Okhuysen,[1] Mayur S. Ramesh,[2] Thomas Louie,[3] Nino Kiknadze,[4] Julian Torre-Cisneros,[5] Claudia Murta de Oliveira,[6] Christophe Van Steenkiste,[7,8] Alena Stychneuskaya,[9] Kevin W. Garey,[10] Julia Garcia-Diaz,[11] Jianling Li,[12] Esther Duperchy,[12] Betty Y. Chang,[12] Juthamas Sukbuntherng,[12] Jose G. Montoya,[12,13] Lori Styles,[12] Fong Clow,[12] Danelle James,[12] Erik R. Dubberke,[14] and Mark Wilcox[15]

- <u>Design</u>
  - Essai de phase 3 de supériorité
  - 759 adultes avec infection à *Clostridioides difficile* prouvée (grave et non grave)
  - Exclusion des formes récurrentes (> 1 épisode dans les 3 mois ou > 3 épisodes dans les 12 mois)
  - Ridinilazole 200 mg x 2/j vs vancomycine 125 mg x 4/j
  - Critère de jugement principal : réponse clinique soutenue (J40)

- <u>Résultats</u>
  - Supériorité non démontrée
  - Moins de récurrences dans le groupe ridinilazole
  - Pas de différence significative en termes de tolérance
  - Moins de modification du microbiote digestif avec le ridinilazole



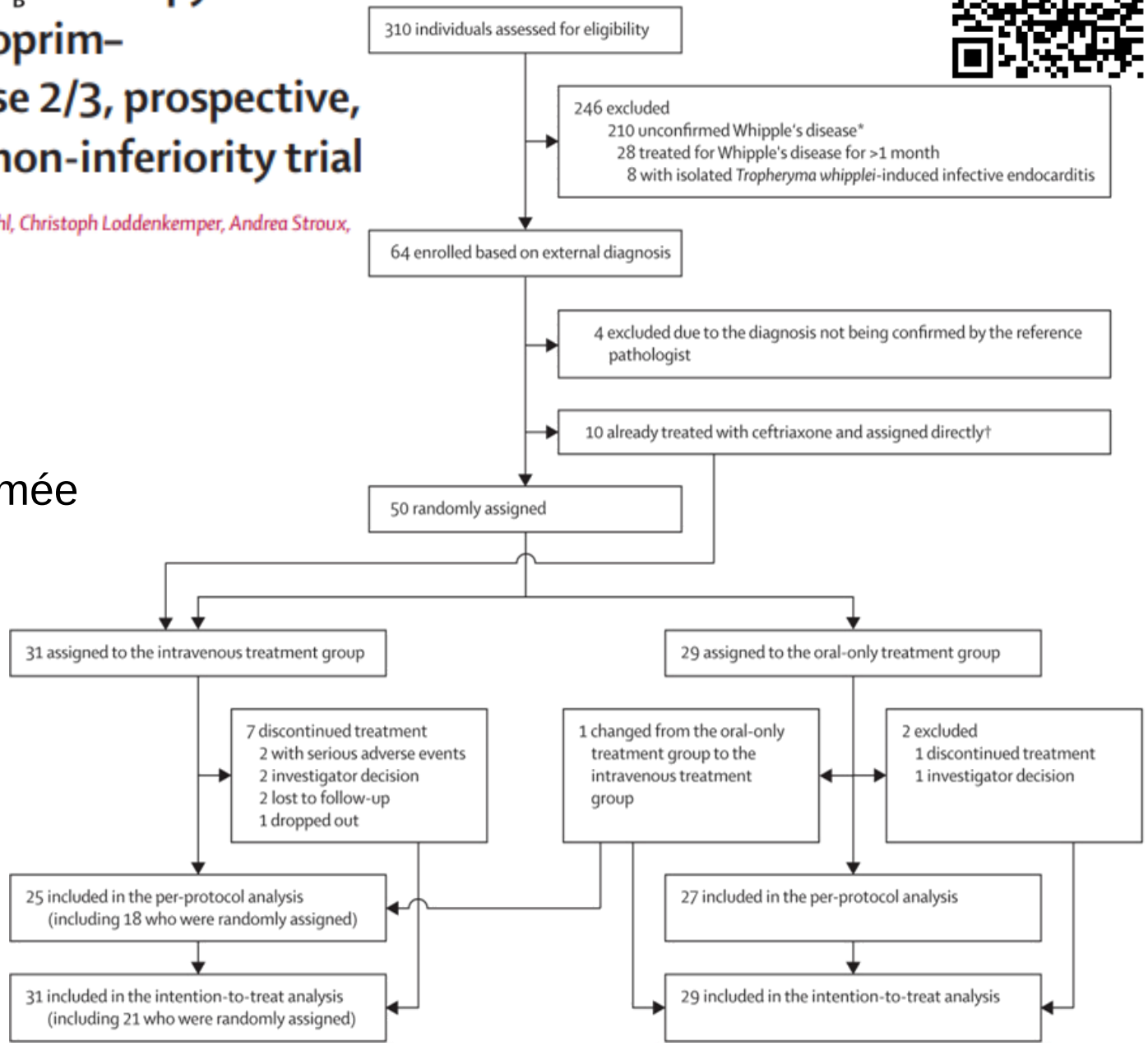

# Oral treatment of Whipple's disease with doxycycline and hydroxychloroquine versus intravenous therapy with ceftriaxone followed by oral trimethoprim–sulfamethoxazole in Germany: a phase 2/3, prospective, open-label, randomised, controlled, non-inferiority trial

*Verena Moos*, Justina Krüger*, Kristina Allers, Annette Moter, Judith Kikhney, Anja A Kühl, Christoph Loddenkemper, Andrea Stroux, Katina Schinnerling, Thomas Schneider*

- Essai (semi)-randomisé de non-infériorité
- Doxycycline/HCQ vs C3G/Cotrimoxazole
- **Inclusion** : >18ans, maladie Whipple confirmée (clinique + histologie et/ou PCR)
- **Exclusion** : ATB efficace depuis >1mois, récurrence,  Endocardite isolée, néoplasie, VIH, CI aux traitements

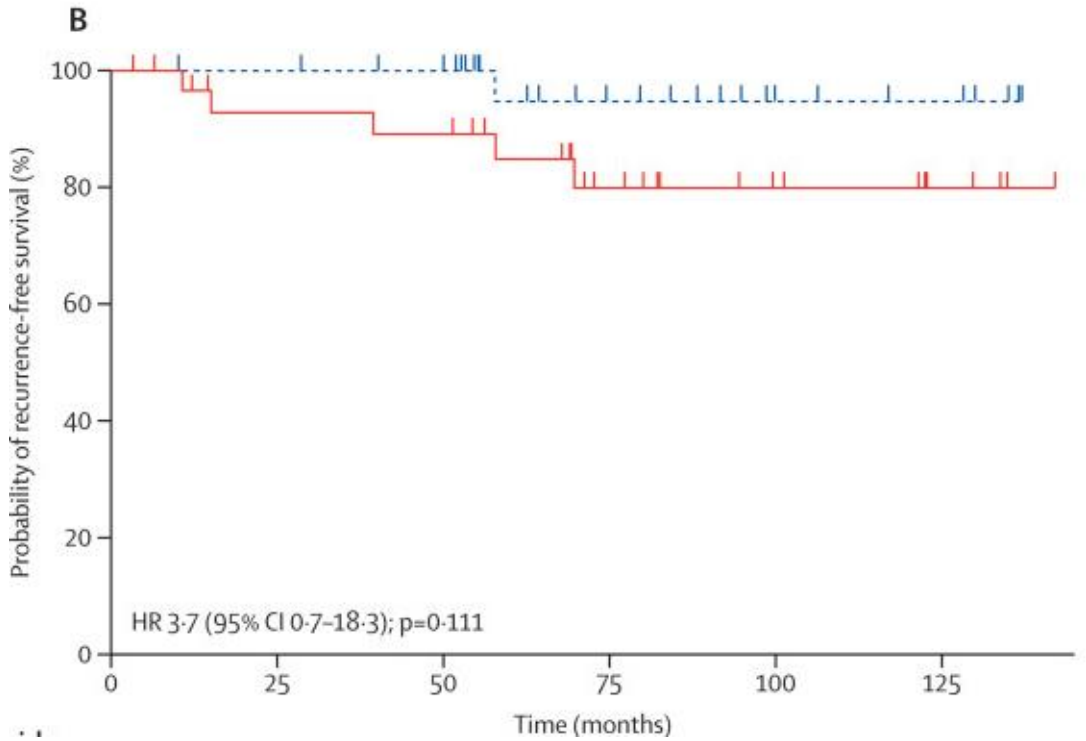
CTX 2g – 15j → SMX/TMP 1600/320 – 12 mois

Doxy 200mg + HCQ 400mg – 12 mois

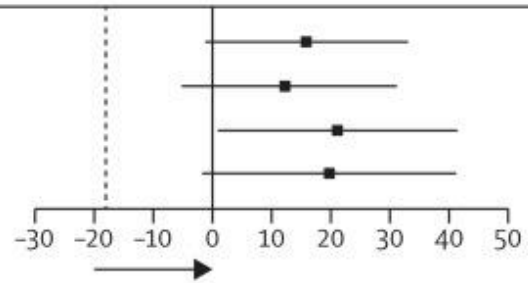


# Oral treatment of Whipple's disease with doxycycline and hydroxychloroquine versus intravenous therapy with ceftriaxone followed by oral trimethoprim–sulfamethoxazole in Germany: a phase 2/3, prospective, open-label, randomised, controlled, non-inferiority trial

- 60 patients, 31 IV vs 29 po
- Présentation :
  - Articulaire (>90%)
  - Digestif
    - Malabsorption / perte de poids (97 vs 90%)
    - Diarrhée (61 vs 15%)
  - Neurologique (37 vs 25%)
  - Endocardite/péricardite (19 vs 7%)
  - Epanchement pleural (26 vs 17%)
  - Fièvre (48 vs 41%)

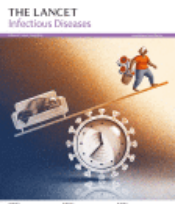



| | Oral-only treatment group events, n/N (%) | Intravenous treatment group events, n/N (%) | Risk difference (95% CI)* |
|---|---|---|---|
| ITT analysis (all participants) | 28/29 (96·6%) | 25/31 (80·6%) | 15·9% (–1·2 to 33·1) |
| Per-protocol analysis (all participants) | 26/27 (96·3%) | 21/25 (84·0%) | 12·3% (–5·2 to 31·2) |
| ITT analysis (only randomly assigned participants) | 28/29 (96·6%) | 16/21 (76·2%) | 20·4% (1·3 to 41·8) |
| Per-protocol analysis (only randomly assigned participants) | 26/27 (96·3%) | 14/18 (77·8%) | 18·8% (–1·2 to 41·7) |




The oral-only treatment group is non-inferior to the intravenous treatment group

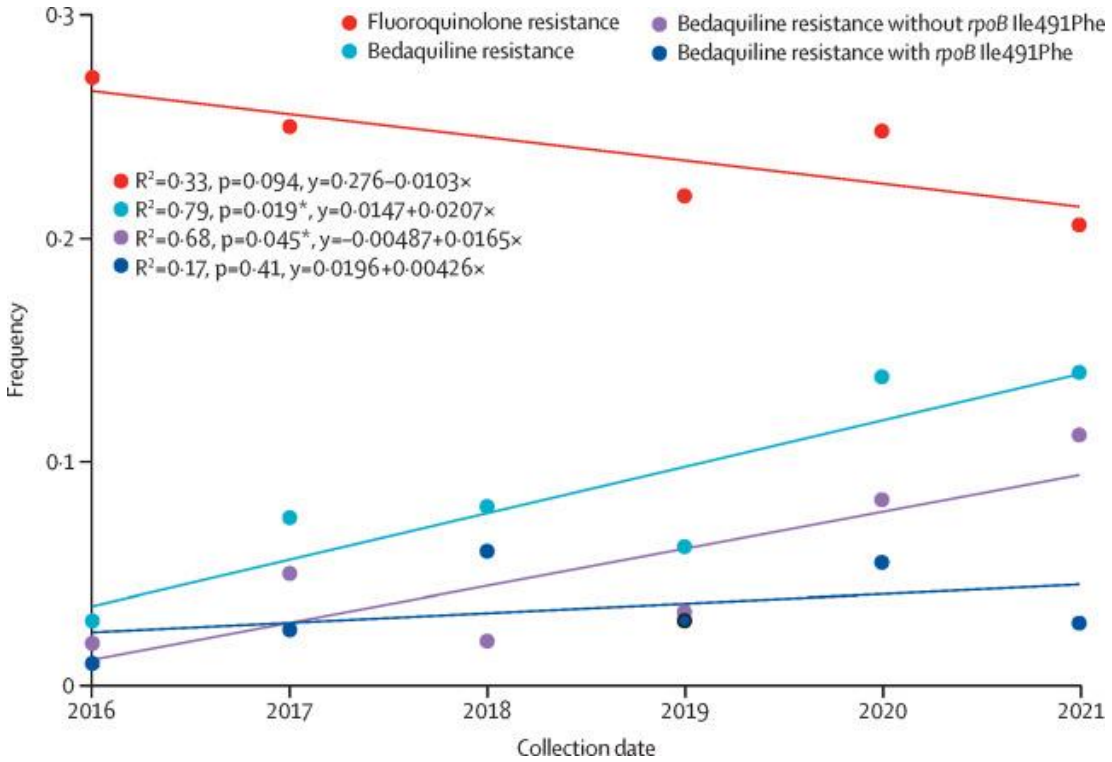
The oral-only treatment group is superior to the intravenous treatment group

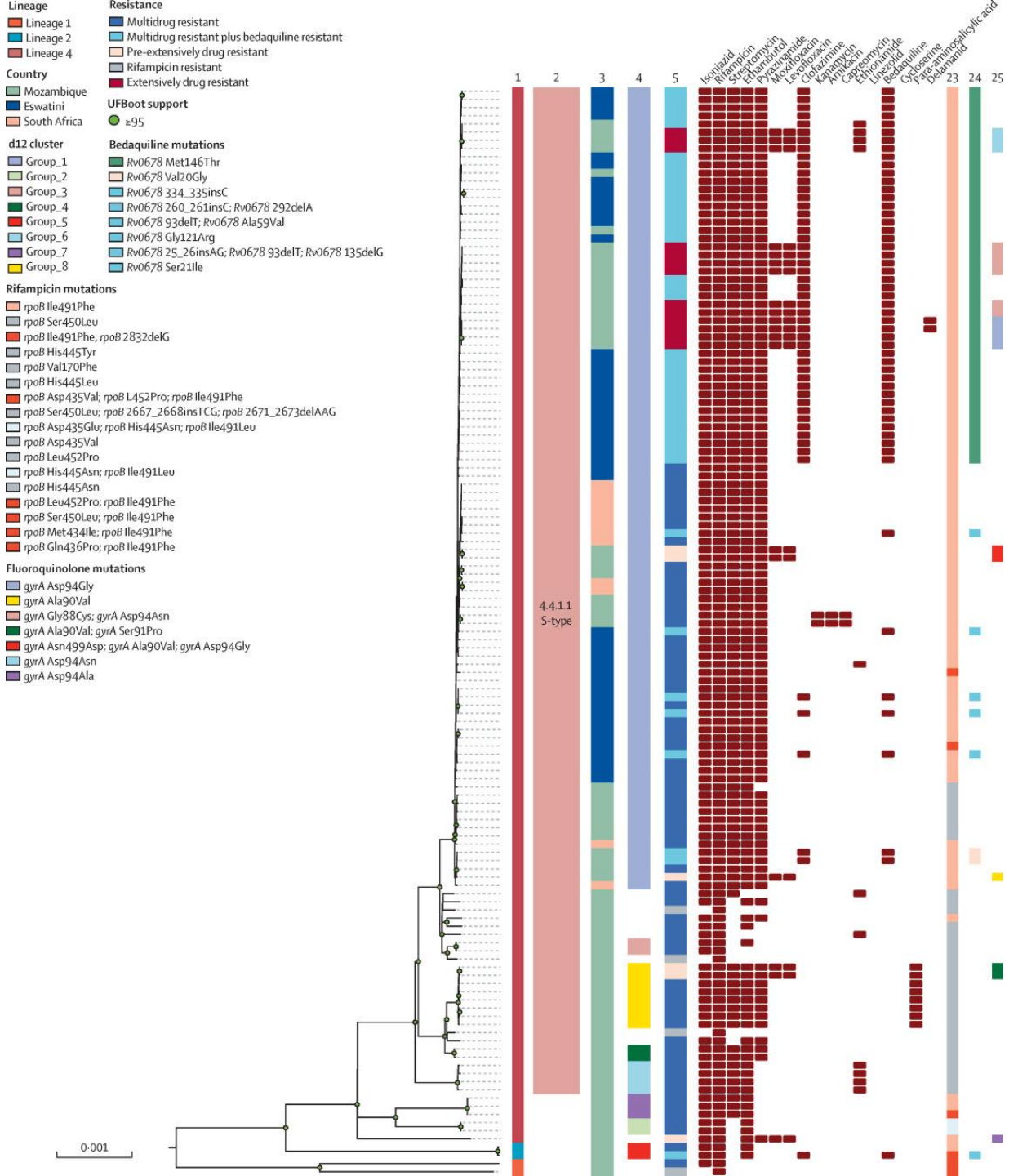


# Emergence of bedaquiline-resistant tuberculosis and of multidrug-resistant and extensively drug-resistant *Mycobacterium tuberculosis* strains with *rpoB* Ile491Phe mutation not detected by Xpert MTB/RIF in Mozambique: a retrospective observational study

*Ivan Barilar*, Tatiana Fernando*, Christian Utpatel*, Cláudio Abujate, Carla Maria Madeira, Benedita José, Claudia Mutaquiha, Katharina Kranzer, Tanja Niemann, Nalia Ismael, Leonardo de Araujo, Thierry Wirth, Stefan Niemann†, Sofia Viegas†*

- Augmentation de la résistance à la bédaquiline : 3% (2016) à 14%(2021)



Research

JAMA | Original Investigation | CARING FOR THE CRITICALLY ILL PATIENT

# Prolonged vs Intermittent Infusions of β-Lactam Antibiotics in Adults With Sepsis or Septic Shock

## A Systematic Review and Meta-Analysis

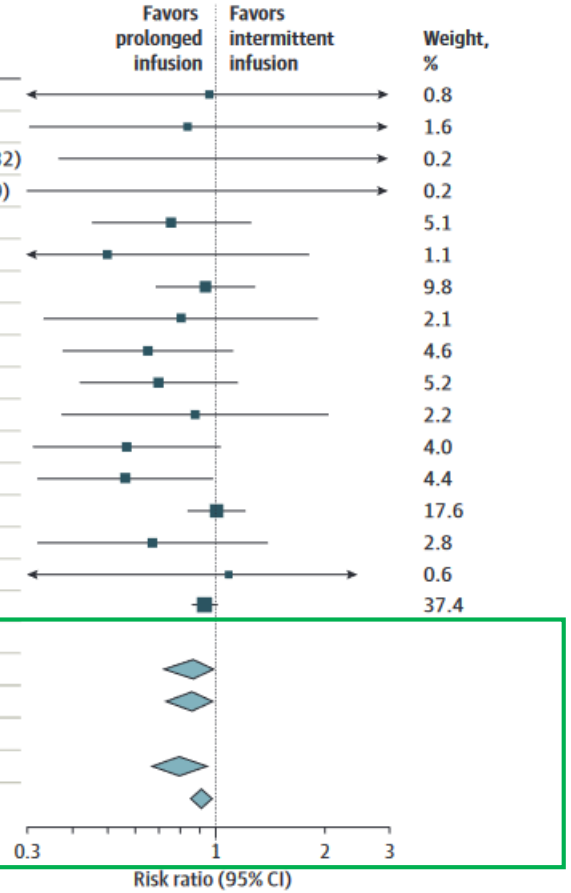
Mohd H. Abdul-Aziz, BPharm, PhD; Naomi E. Hammond, RN, PhD; Stephen J. Brett, MD; Menino O. Cotta, BPharm, PhD; Jan J. De Waele, MD, PhD; Anthony Devaux, PhD; Gian Luca Di Tanna, PhD; Joel M. Dulhunty, MD, PhD; Hatem Elkady, MD; Lars Eriksson, BA; M. Shahnaz Hasan, MD; Ayesha Bibi Khan, MD; Jeffrey Lipman, MD, DMed; Xiaoqiu Liu, PhD; Giacomo Monti, MD; John Myburgh, MD, PhD; Emmanuel Novy, MD; Shahed Omar, MD; Dorrilyn Rajbhandari, RN; Claire Roger, MD, PhD; Fredrik Sjövall, MD, PhD; Irene Zaghi, MD; Alberto Zangrillo, MD; Anthony Delaney, MD, PhD; Jason A. Roberts, BPharm, PhD

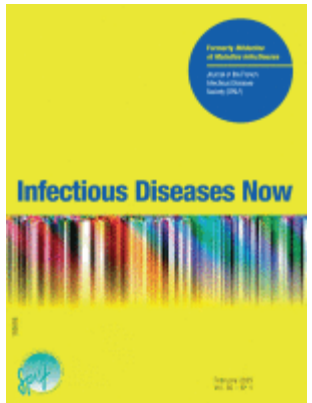
- Design
  - Revue systématique de la littérature et méta-analyse
  - 17 essais contrôlés randomisés comparant l'administration intermittent (perfusion < 2 h) vs prolongée (perfusion > 2 h ou continue) de β-lactamines chez patients en sepsis ou choc septique en soins intensifs
  - Critère de jugement principal : mortalité à J90

- Résultats
  - RR de décès = 0,86 (0,72 – 0,98) en cas de perfusion prolongée
  - RR de guérison clinique = 1,16 (1,07 – 1,31) en cas de perfusion prolongée

Figure 1. All-Cause 90-Day Mortality for the Comparison Between Prolonged Infusions of β-Lactam Antibiotics vs Intermittent Infusions

| Study | Dead (prolonged) | Alive (prolonged) | Dead (intermittent) | Alive (intermittent) | Absolute difference (95% CI) | Risk ratio (95% CI) | Weight, % |
|---|---|---|---|---|---|---|---|
| Georges et al,[33] 2005 | 3 | 21 | 3 | 20 | -0.01 (-0.20 to 0.19) | 0.96 (0.21 to 4.27) | 0.8 |
| Rafati et al,[34] 2006 | 5 | 15 | 6 | 14 | -0.05 (-0.33 to 0.23) | 0.83 (0.30 to 2.29) | 1.6 |
| Roberts et al,[35] 2007 | 3 | 26 | 0 | 28 | 0.10 (-0.02 to 0.22) | 6.77 (0.37 to 125.32) | 0.2 |
| Roberts et al,[36] 2009 | 2 | 3 | 0 | 5 | 0.33 (-0.12 to 0.79) | 5.00 (0.30 to 83.69) | 0.2 |
| Chytra et al,[38] 2012 | 21 | 99 | 28 | 92 | -0.06 (-0.16 to 0.04) | 0.75 (0.45 to 1.24) | 5.1 |
| Dulhunty et al,[39] 2013 | 3 | 27 | 6 | 24 | -0.10 (-0.28 to 0.08) | 0.50 (0.14 to 1.82) | 1.1 |
| Dulhunty et al,[40] 2015 | 54 | 156 | 60 | 158 | -0.02 (-0.10 to 0.07) | 0.93 (0.68 to 1.28) | 9.8 |
| Jamal et al,[41] 2015 | 4 | 4 | 5 | 3 | -0.12 (-0.61 to 0.36) | 0.80 (0.33 to 1.92) | 2.1 |
| Jamal et al,[42] 2015 | 5 | 3 | 8 | 0 | -0.33 (-0.69 to 0.02) | 0.65 (0.38 to 1.12) | 4.6 |
| Abdul-Aziz et al,[43] 2016 | 18 | 52 | 26 | 44 | -0.11 (-0.27 to 0.04) | 0.69 (0.42 to 1.14) | 5.2 |
| Zhao et al,[44] 2017 | 7 | 18 | 8 | 17 | -0.04 (-0.29 to 0.21) | 0.88 (0.37 to 2.05) | 2.2 |
| Khan and Omar,[22] 2023 | 12 | 40 | 20 | 29 | -0.18 (-0.36 to 0.00) | 0.57 (0.31 to 1.03) | 4.0 |
| Mirjalili et al,[45] 2023 | 14 | 54 | 25 | 43 | -0.16 (-0.31 to -0.01) | 0.56 (0.32 to 0.98) | 4.4 |
| Monti et al,[14] 2023 | 127 | 176 | 127 | 177 | 0.00 (-0.08 to 0.08) | 1.00 (0.83 to 1.21) | 17.6 |
| Saad et al,[46] 2024 | 8 | 22 | 12 | 18 | -0.13 (-0.37 to 0.10) | 0.67 (0.32 to 1.39) | 2.8 |
| Álvarez-Moreno et al,[47] 2024 | 2 | 10 | 2 | 11 | 0.01 (-0.28 to 0.30) | 1.08 (0.18 to 6.53) | 0.6 |
| Dulhunty et al,[15] 2024 | 864 | 2610 | 939 | 2568 | -0.02 (-0.04 to 0.00) | 0.93 (0.86 to 1.01) | 37.4 |
| Bayesian | | | | | | | |
| Vague priors[a] | | | | | -0.03 (-0.08 to 0.00) | 0.86 (0.72 to 0.98) | |
| Semi-informative priors[a] | | | | | -0.04 (-0.10 to 0.01) | 0.86 (0.73 to 0.98) | |
| Frequentist | | | | | | | |
| Hartung-Knapp-Sidik-Jonkman | | | | | -0.05 (-0.10 to 0.00) | 0.80 (0.67 to 0.94) | |
| DerSimonian-Laird | | | | | -0.03 (-0.07 to 0.00) | 0.91 (0.85 to 0.97) | |






Guidelines

# Intravenous administration of antibiotics by prolonged and continuous infusion

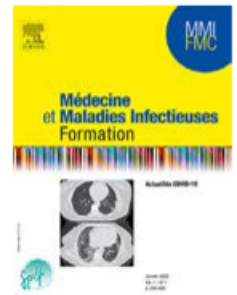
Clément Ourghanlian [a b c d e], Elise d'Huart [f g], Pascale Longuet [e], Matthieu Boisson [h i], Fabrice Bruneel [j k], Delphine Cabelguenne [l c], Alexandre Charmillon [m d], Antoine Dupuis [n c], Pierre Fillatre [o d], Luc Foroni [p q], Lucie Germon [r c], Sylvain Goutelle [s t], Anne-Lise Lecapitaine [u e], Cyril Magnan [v q], Claire Roger [w i], Jean Vigneron [f g], Michel Wolff [x k], Remy Gauzit [d], Sylvain Diamantis [y d e]

le groupe de relecture

...Marie-Charlotte Chopin [aj ah]

Médecine et Maladies Infectieuses Formation 3 (2024) 90–97






MISE AU POINT PRATIQUE

# Repenser la place des phénicolés en 2024

## Reconsidering the role of phenicols in 2024

**Romain Manchon** [a,*], **Lamine Abdennour** [b], **Vincent Degos** [b], **Alexandre Bleibtreu** [a]

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[b] *Service de réanimation neurochirurgicale, Hôpital Pitié-Salpêtrière, GHU AP-HP. Sorbonne Université, Paris, France*

# Recommandations

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

# Treatment of infections caused by multi-drug-resistant Gram-negative bacilli: A practical approach by the Italian (SIMIT) and French (SPILF) Societies of Infectious Diseases

Marianna Meschiari[a], Antoine Asquier-Khati[b], Giusy Tiseo[c], David Luque-Paz[d], Rita Murri[e], David Boutoille[b], Marco Falcone[c], Cristina Mussini[a], Pierre Tattevin[d,*], on behalf of the Italian Society of Infectious and Tropical Diseases (SIMIT), and the French Society of Infectious Diseases (SPILF)

**Table 1**
Pneumonia.

| Pathogens | ESCMID recommendations | Comments and practical approach |
|---|---|---|
| Ventilator-associated pneumonia caused by AmpC-producing Enterobacterales | No specific recommendations for AmpC-producing Enterobacterales pneumonia<br>For 3GCephRE infections:<br>piperacillin-tazobactam or quinolones for non-severe infections; carbapenems for severe infections | **Cefepime as first-line treatment**<br>Cefepime as monotherapy when MIC ≤2 mg/L<br>Higher mortality was only found in ESBL-producing Enterobacterales infections with high cefepime MIC<br>For AmpC-producing Enterobacterales infections, cefepime performed at least as well as comparators in observational studies, including in ICUs |
| Severe pneumonia caused by difficult-to-treat resistant *Pseudomonas aeruginosa* with resistance to ceftolozane-tazobactam | No recommendation in case of ceftolozane-tazobactam resistance<br>Lack of evidence for imipenem-relebactam, cefiderocol and ceftazidime-avibactam use<br>No clear recommendation for combination therapy | **Combination therapy: at least one in-vitro active agent + aerosolized antibiotics**<br>If susceptible: imipenem-relebactam or ceftazidime-avibactam<br>For MBL: cefiderocol in combination regimen with in-vitro active partner, such as fosfomycin<br>Systematic use of aerosolized colistin or tobramycin therapy: favourable PK/PD profile, improved microbiological outcomes, good tolerability |

ESCMID, European Society of Clinical Microbiology and Infectious Diseases; 3GCephRE, third-generation cephalosporin-resistant Enterobacterales; MBL, metallo-$\beta$-lactamases; ESBL, extended-spectrum beta-lactamase; ICU, intensive care unit; PK/PD, pharmacokinetic/pharmacodynamic; MIC, minimum inhibitory concentration.

**Table 2**
Severe complicated urinary tract infections.

| Pathogens | ESCMID recommendations | Comments and practical approach |
|---|---|---|
| ESBL-producing Enterobacterales | Carbapenems (meropenem or imipenem; ertapenem if no septic shock)<br>Under AMS consideration, piperacillin-tazobactam can be used as the first-line therapy in low-inoculum, non-severe 3GCephRE infections, and as a step-down therapy for severe infections<br>Conditional recommendation/ good practice statement against the use of new BLBLIs for 3GCephRE | **For AMS purposes, consider carbapenem-sparing strategies**<br>cUTIs due to ESBL-producing Enterobacterales with piperacillin-tazobactam MIC <8 mg/L: high-dose piperacillin-tazobactam, with loading dose and continuous infusion<br>cUTIs due to ESBL-Enterobacterales with piperacillin-tazobactam MIC >8 mg/L, aminoglycosides or intravenous fosfomycin are alternatives alone or in combination strategies due to high urinary concentrations and low prevalence of resistance<br>Cefoxitin may be an option for ESBL-producing *Escherichia coli*, as well as temocillin, based on drug-susceptibility testing studies<br>New BLBLIs should be reserved for settings with concomitant high rates of resistance to piperacillin-tazobactam and carbapenems |
| AmpC-producing Enterobacterales | Carbapenems (meropenem or imipenem; ertapenem if no septic shock)<br>No recommendations for organisms with moderate to high likelihood of AmpC production due to inducible AmpC gene (e.g. *Enterobacter cloacae, Citrobacter freundii)*<br>Conditional recommendation against the use of cefepime for 3GCephRE | **For AMS purposes, consider carbapenem-sparing strategies**<br>cUTIs due to AmpC-producing Enterobacterales with cefepime MIC ≤2 mg/L: high-dose cefepime (2 g t.i.d.)<br>cUTIs due to AmpC-producing Enterobacterales with cefepime MIC >2 mg/L: new BLBLIs may be considered, instead of carbapenems, based on local resistance rates |

ESCMID, European Society of Clinical Microbiology and Infectious Diseases; cUTIs, complicated urinary tract infections; AMS, antimicrobial stewardship; BLBLI, $\beta$-lactam/$\beta$-lactamase inhibitor combination; ESBL, extended-spectrum beta-lactamase; 3GCephRE, third-generation cephalosporin-resistant Enterobacterales; MIC, minimum inhibitory concentration.

**Table 3**
Intra-abdominal infections.

| Pathogens | ESCMID recommendations | Comments and practical approach |
|---|---|---|
| Third-generation cephalosporin-resistant Enterobacterales | Severe infections:<br>Carbapebems as first choice | For AMS purposes, consider early de-escalation to ceftolozane-tazobactam (if active *in vitro*) plus metronidazole as soon as clinical stability is achieved |
| | Non-severe infections:<br>Piperacillin-tazobactam or amoxicillin-clavulanate or Quinolones | High prevalence of resistance to piperacillin-tazobactam, amoxicillin-clavulanate or quinolones among ESBL-producing *E. coli* isolates from IAIs in Europe |
| Carbapenem-resistant Enterobacterales | Severe infections:<br>Meropenem-vaborbactam or ceftazidime-avibactam as first choice<br>Cefiderocol if MBL or resistant to meropenem-vaborbactam or ceftazidime-avibactam (conditional)<br>No evidence for or against imipenem-relebactam or fosfomycin monotherapy | First-line antibiotic regimens should be based on carbapenemase type, local epidemiology (prevalence of ceftazidime-avibactam resistance) and concomitant isolates:<br>KPC:<br>Imipenem-relebactam (also active against enterococci) or meropenem-vaborbactam or ceftazidime-avibactam plus metronidazole as first choice<br>MBL:<br>Ceftazidime-avibactam plus aztreonam plus metronidazole as first choice<br>Cefiderocol combination regimens (plus tygecicline or plus fosfomycin and metronidazole as alternative regimen)<br>OXA-48:<br>Ceftazidime/avibactam plus metronidazole or cefiderocol-containing regimens (plus tigecycline or plus fosfomycin and metronidazole) |

ESCMID, European Society of Clinical Microbiology and Infectious Diseases; AMS, antimicrobial stewardship; IAI, intra-abdominal infection; ESBL, extended-spectrum beta-lactamase; MBL, metallo-beta-lactamase; KPC, *Klebsiella pneumoniae* carbapenemase.

**Table 4**
Primary bloodstream infections.

| Pathogens | ESCMID recommendations | Comments and practical approach |
|---|---|---|
| CRAB | Ampicillin-sulbactam for HAP/VAP with CRAB susceptible to sulbactam<br>Combination therapy for patients with severe and high-risk CRAB infections, including two in-vitro active agents (e.g. polymyxin, aminoglycoside, tigecycline, sulbactam) | **Ampicillin sulbactam in association with colistin as first choice**<br>Combination therapy associated with better survival for CRAB, particularly for primary BSIs (high-risk infections), particularly with sepsis or septic shock<br>New data support the use of ampicillin-sulbactam as part of combination therapy<br>Combination with colistin is recommended because of its in-vitro activity, its widespread use, and its efficacy with ampicillin-sulbactam documented in a randomized study [40]<br>Results from CREDIBLE-CR study advocate against the use of cefiderocol as a single agent in this situation |
| KPC-producing *K. pneumoniae* | Meropenem-vaborbactam or ceftazidime-avibactam if active *in vitro* for patients with severe infections due to CRE<br>Cefiderocol for severe infections due to CRE carrying MBL or resistant to meropenem-vaborbactam or ceftazidime-avibactam<br>Monotherapy for patients with CRE infections susceptible to ceftazidime-avibactam or meropenem-vaborbactam | **Meropenem-vaborbactam**<br>For AMS purposes, consider the following:<br>Among CPE, meropenem-vaborbactam is only active against KPC, while the spectrum is wider for ceftazidime-avibactam (OXA-48, DTR-PA), imipenem-relebactam (DTR-PA) and cefiderocol (OXA-48, MBL and DTR-PA).<br>Hence, meropenem-vaborbactam may be prioritized as the new BLBLI with the narrowest spectrum<br>Ceftazidime-avibactam and imipenem-relebactam as alternative options |

ESCMID, European Society of Clinical Microbiology and Infectious Diseases; BSI, bloodstream infection; AMS, antimicrobial stewardship; CRAB, carbapenem-resistant *Acinetobacter baumannii*; CRE, carbapenem-resistant Enterobacterales; KPC, *Klebsiella pneumoniae* carbapenemase; MBL, metallo-$\beta$-lactamases; VAP, ventilator-associated pneumonia; HAP, hospital-acquired pneumonia; DTR-PA, difficult-to-treat resistant *Pseudomonas aeruginosa*; BLBLI, $\beta$-lactam/$\beta$-lactamase inhibitor combinations.

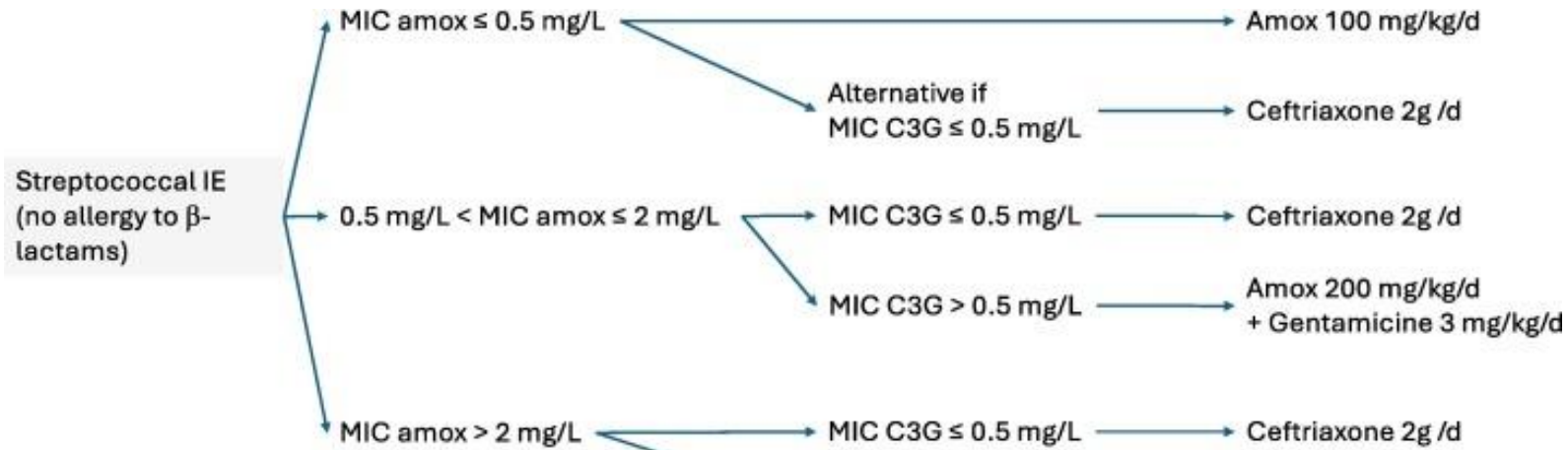

Guidelines

Antibiotic therapy and prophylaxis of infective endocarditis – A SPILF-AEPEI position statement on the ESC 2023 guidelines

## Prophylaxie

| Population à risque |
|---|
| Antécédent d'endocardite |
| Valve prothétique |
| Cardiopathie congénitale cyanogène non opéré ou opérée avec matériel |
| Assistance ventriculaire gauche |
| **Geste** |
| Uniquement geste dentaire touchant la gencive ou la région périapicale |
| **Antibiothérapie** |

| | |
|---|---|
| Amoxicilline | 2g |
| Si allergie :<br>Azithromycine<br>Pristinamycin<br>Cefazoline | <br>500mg<br>1000mg<br>1g |




Valves natives : 4 Semaines
Valves prothétiques : 6 Semaines

| *E. faecalis* – 6 semaines | |
|---|---|
| Amoxicilline<br>+ Ceftriaxone | 200mg/kg<br>2gx2/j |
| Si allergie :<br>Daptomycine<br>Ou Vancomycine<br>+ gentamycine | <br>12mg/kg<br>Cible 20-225mg/L<br>3mg/kg –<br>2semaines |

| *E. faecium* – 6 semaines | |
|---|---|
| Vancomycine<br>+<br>gentamycine | Cible 20-225mg/L<br>3mg/kg –<br>2semaines |


Guidelines

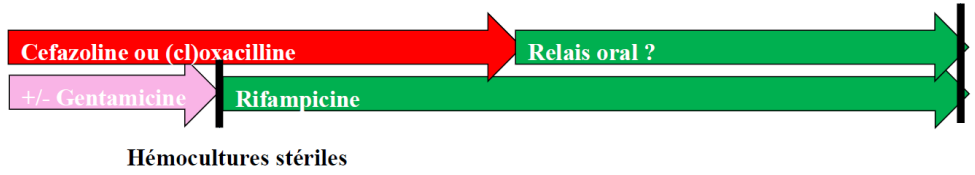
# Antibiotic therapy and prophylaxis of infective endocarditis – A SPILF-AEPEI position statement on the ESC 2023 guidelines

## *Staphylococcus* / Valve native

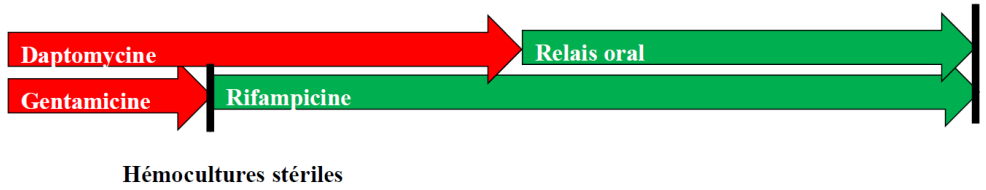
| Situation | Molécule(s) | Commentaires |
|---|---|---|
| | **SASM** | |
| Pas d'allergie aux bétalactamines | **Céfazoline** | A privilégier si infection du SNC (diffusion) |
| | Ou **Cloxacilline** | A privilégier si foyers profonds ou bactériémie persistante |
| Allergie à la pénicilline | **Céfazoline** | |
| Allergie aux bétalactamines | **Daptomycine + Fosfomycine** | Association pendant au plus 7 jours après la première hémoculture positive |
| | **SARM** | |
| | **Daptomycine + Ceftaroline Ou Fosfomycine** | Association pendant au plus 7 jours après la première hémoculture positive |

## *Staphylococcus* / Valve prothétique

**SASM** ≥ 6 semaines




**SARM**




## Relai oral

| | Relai oral de 1ère ligne | Relai oral en alternative |
|---|---|---|
| ***Streptococcus spp.*** | Amoxicilline + rifampicine ou Amoxicilline + moxifloxacine | *Attente des résultats de l'essai RODEO* Amoxicilline |
| ***Enterococcus faecalis*** | Amoxicilline + moxifloxacine | *Attente des résultats de l'essai RODEO* Amoxicilline |
| ***Staphylococcus spp.*** | *Attente des résultats de l'essai RODEO* Rifampicine + lévofloxacine | Cotrimoxazole |
| **BGN** | Ciprofloxacine | |

| Antibiotique oral | Dosage si patient ≤ 70kg | Dosage si patient > 70kg |
|---|---|---|
| **Amoxicilline** | 1.5g x 3 /jour | 2g x 3 / jour |
| **Rifampicine** | 600mg x 1 /jour | 900mg x 1/ jour |
| **Moxifloxacine** | 400mg x 1 / jour | 400mg x 1/jour |
| **Levofloxacine** | 500mg x 1 /jour | 750mg x 1/ jour |
| **Cotrimoxazole** | 320/1600 mg x 3 /jour | 320/1600 mg x 3 / jour |
| **Ciprofloxacine** | 750 mg x 2 / jour | 750 mg x 2/jour |

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RECOMMENDATIONS

# Actualisation des recommandations de prise en charge des pneumonies aiguës communautaires chez l'adulte par la Société de Pathologie Infectieuse de Langue Française (SPILF) et la Société de Pneumologie de Langue Française (SPLF). Avec le soutien de la Société de Réanimation de Langue Française, (SRLF), de la Société Française de Microbiologie (SFM), de la Société Française de Radiologie (SFR) et de la Société Française de Médecine d'Urgence (SFMU)

## Update of guidelines for management of community acquired pneumonia in adults by French infectious disease society (SPILF) and the French speaking society of respiratory diseases (SPLF). Endorsed by French Intensive care society (SRLF), French microbiology society (SFM), French radiology society (SFR), French emergency society (SFMU)

**Tableau 3** Liste des comorbidités à considérer dans le choix d'une antibiothérapie probabiliste pour une PAC.

| Comorbidités modifiant le choix d'antibiothérapie probabiliste pour une PAC |
|---|
| Hospitalisation dans les trois mois précédents |
| Antibiothérapie dans le mois précédent* |
| Éthylisme chronique |
| Troubles de la déglutition |
| Maladie neurologique sévère avec risque de fausses routes** |
| Néoplasie active |
| Immunodépression*** |
| BPCO sévère (VEMS < 50 % de la théorique) ou insuffisance respiratoire chronique (OLD ou VNI) |
| Insuffisance cardiaque congestive |
| Insuffisance hépatique |
| Insuffisance rénale chronique (DFG < 30 mL/min) |

* sauf nitrofurantoïne, fosfomycine orale, pivmecillinam.
** (AVC, Parkinson, Démence, SEP, etc.).
*** (corticoïdes systémiques ≥ 10 mg/j, autres traitements immunosuppresseurs, asplénie, agranulocytose, infection par le VIH avec une numération lymphocytaire T CD4 ≤ 200/mm$^3$, déficit immunitaire primitif, etc.).
NB 1 : La présence d'une seule des comorbidités listées ci-dessus suffit à modifier le choix de l'amoxicilline comme antibiothérapie probabiliste d'une PAC.
NB 2 : L'asthme en soi n'est pas une comorbidité justifiant de choisir une antibiothérapie différente de l'amoxicilline en première intention. Toutefois, il est important de considérer d'autres paramètres telle que la prescription récente d'antibiotiques dans le choix de cette dernière.
NB 3 : L'âge sans comorbidité n'est pas un critère à prendre en compte.

**Tableau 7** Antibiothérapie probabiliste et dirigée des PAC en cas de bactérie atypique suspectée ou diagnostiquée chez l'adulte.

| Antibiothérapie en cas de bactérie atypique | | |
|---|---|---|
| | Molécule | Allergie/alternative |
| **Légionellose** | Macrolide* | Si forme grave ou contre-indication aux macrolides : lévofloxacine |
| ***Mycoplasma pneumoniae*** | Macrolide* | Cycline<br>Si contre-indication aux macrolides et aux cyclines : lévofloxacine |
| ***Chlamydophila pneumoniae*** | Macrolide* | Cycline<br>Si contre-indication aux macrolides et aux cyclines : lévofloxacine |

* Macrolides : azithromycine, clarithromycine, roxithromycine, spiramycine.

**Tableau 11** Critères de stabilité clinique au cours des PAC [136]

| Critères de stabilité clinique | Valeurs |
|---|---|
| Température | ≤ 37,8 °C |
| Pression artérielle systolique | ≥ 90 mmHg |
| Fréquence cardiaque | ≤ 100/min |
| Fréquence respiratoire | ≤ 24/min |
| $SpO_2$ | ≥ 90 % en air ambiant |
| ou $PaO_2$ | ≥ 60 mmHg en air ambiant |

2. **Recommandations 2025**

- Au cours des PAC non graves (ambulatoires) et modérément graves (hospitalisation hors soins critiques), et en cas d'obtention de l'ensemble des critères de stabilité clinique à J3, un traitement antibiotique de trois jours au total est recommandé (**Grade A-1**)[1] ;
- Si la stabilité clinique n'est obtenue qu'entre trois et cinq jours de traitement, un traitement antibiotique de cinq jours au total est recommandé (**Grade B-1**) ;

2. **Recommandations 2025**

- **Au cours des PAC non graves (ambulatoires ou hospitalisées),** l'adjonction de corticoïdes n'est pas recommandée (**Grade A-2**) ;
- **Au cours des PAC graves** hospitalisées en soins critiques, l'adjonction d'hémisuccinate d'hydrocortisone, débutée dans les 24 heures suivant l'apparition des signes de gravité et à la posologie de 200 mg par jour, avec une réévaluation au quatrième jour pour statuer sur la

Tableau 3 Liste des comorbidités à considérer dans le choix d'une antibiothérapie probabiliste pour une PAC.

| Comorbidités modifiant le choix d'antibiothérapie probabiliste pour une PAC |
| --- |
| Hospitalisation dans les trois mois précédents |

Tableau 11 Critères de stabilité clinique au cours des PAC [136]

## 2. Recommandations 2025

**Au cours des PAC (ambulatoires ou hospitalisées),** le dosage de la CRP n'est pas recommandé de manière systématique pour le diagnostic et/ou le suivi des PAC **(Grade C-1).**

NB 3 : L'âge sans comorbidité n'est pas un critère à prendre en compte.

modérément graves (hospitalisation hors soins critiques), et en cas d'obtention de l'ensemble des critères de

## 2. Recommandations 2025

**Au cours des PAC ambulatoires ou hospitalisées,** le dosage de la PCT n'est pas recommandé de manière systématique pour le diagnostic et/ou le suivi des PAC **(Grade C-1).**

réévaluation au quatrième jour pour statuer sur la

# Mycologie

*Clinical Infectious Diseases*

MAJOR ARTICLE

# European Study of Cerebral Aspergillosis treated with Isavuconazole (ESCAI): A study by the ESCMID Fungal Infection Study Group

**Alexandra Serris,[1] Riina Rautemaa-Richardson,[2,3,a] Joana D. Laranjinha,[4,a] Anna Candoni,[5,a] Carolina Garcia-Vidal,[6,b] Ana Alastruey-Izquierdo,[7,8,b] Helena Hammarström,[9,10,b] Danila Seidel,[11,12] Jan Styczynski,[13] Raquel Sabino,[14,15] Frederic Lamoth,[16,17] Juergen Prattes,[18] Adilia Warris,[19,20] Raphaël Porcher,[21,22] Fanny Lanternier[1,23]; and the ESCAI Study Group**

- Design
  - Cohorte rétrospective multicentrique européenne
  - 40 patients avec aspergillose cérébrale (25 prouvées, 15 probables) ayant été traitée par isavuconazole
  - Comparaison avec cohorte CEREALS (aspergilloses cérébrales non traitées par isavuconazole) via IPTW

- Résultats
  - 10 patients traités par isavuconazole en 1ère ligne dont 9 en association un autre antifongique (amphotéricine B ou échinocandine)
  - 30 patients traités par isavuconazole en 2ème ligne ou plus (raisons du relais : 23 % échec, 50 % effets secondaires, 10 % facilité, 13,3 % interactions ou sous-dosage, 3,3 % coinfection fongique)
  - 18 (45 %) réponses complètes, 5 (12,5 %) réponses partielles, 6 (15 %) stabilisations, 11 (27,5 %) progressions

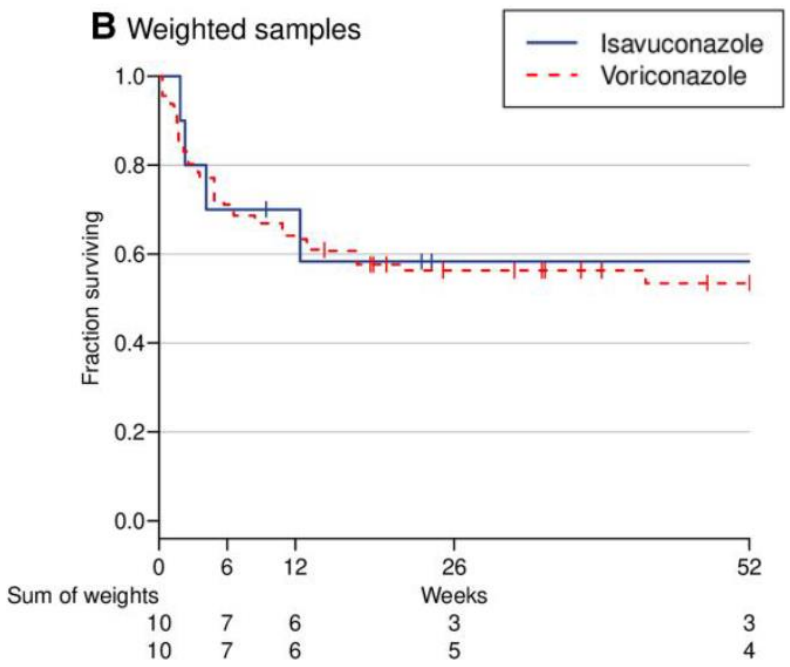
**Table 3. Therapeutic Drug Monitoring**

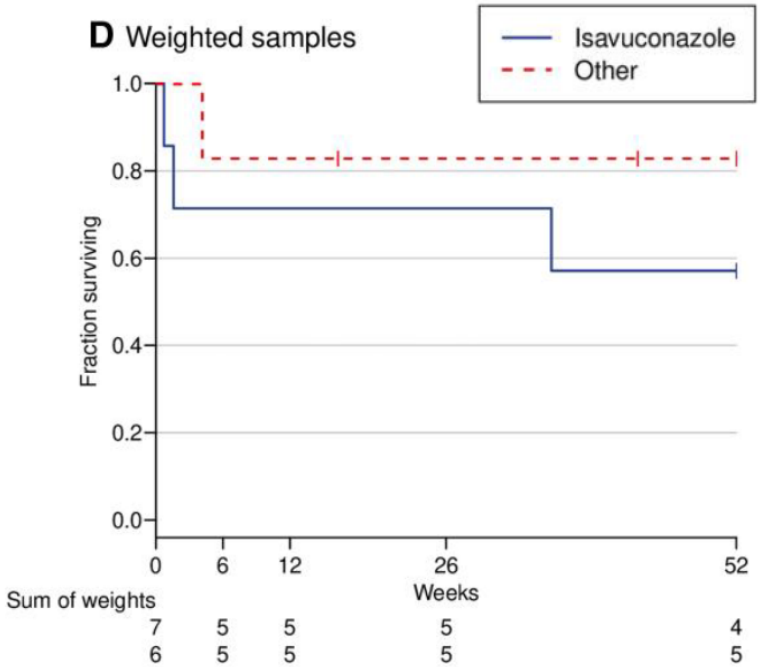
| | Values |
|---|---|
| Number of patients monitored, n/N (%) | 25/40 (62.5%) |
| Median [IQR] number of concentrations/patient | 4 [1–6] |
| Median [IQR] serum trough concentrations | 3.5 mg/L [2.7–4] |
| At least 1 serum concentration <1 mg/L, n/N (%) | 5/25 (20%) |
| CSF isavuconazole level (n = 5), n | |
| <0.5 mg/L | 4 |
| 0.5–2 mg/L | 1 |
| Isavuconazole concentration measured in the CNS (n = 2) | |
| Patient 1 | |
| Within the fungal abscess | 5 mg/L |
| In inflamed dura mater | 2.62 mg/L |
| In normal brain, surrounding the abscess | 0.405 mg/L |
| Patient 2 | |
| Within the fungal abscess | 1.46 mg/L |
| Liquid content of the abscess | 0.02 mg/L |

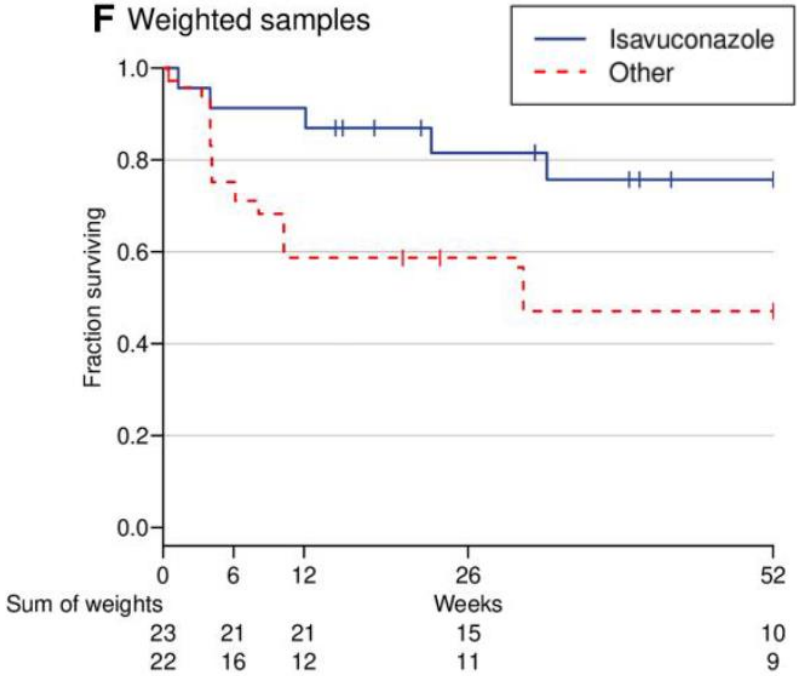
Abbreviations: CNS, central nervous system; CSF, cerebrospinal fluid; IQR, interquartile range.

**Table 4. Mortality at 12 Weeks and Over Entire Follow-up**

| | Mortality at 12 Weeks | | | Overall Mortality | | |
|---|---|---|---|---|---|---|
| | n/N | Estimate (95% CI) | $P^a$ | n/N | Estimate (95% CI) at 3 Years | $P^b$ |
| All patients | 7/40 | 18% (5– 29%) | | 16/40 | 55% (26–72%) | |
| Underlying disease | | | .60 | | | .15 |
| Hematological | 3/21 | 14% (0–28%) | | 6/21 | 33% (7–51%) | |
| Others | 4/19 | 21% (0–37%) | | 10/19 | 52% (12–97%) | |
| Hematogenous dissemination | | | .30 | | | .86 |
| Yes | 5/21 | 24% (3–40%) | | 9/21 | 57% (14–79%) | |
| No | 2/19 | 11% (0–23%) | | 7/19 | 50% (11–71%) | |
| Serum galactomannan positivity | | | .20 | | | .30 |
| Yes | 4/14 | 29% (1–49%) | | 8/14 | 79% (1–96%) | |
| No | 3/23 | 13% (0–26%) | | 8/23 | 43% (13–63%) | |
| Isavuconazole | | | .30 | | | .32 |
| First-line treatment | 3/10 | 30% (0–53%) | | 5/10 | 61% (0–85%)[d] | |
| Second-line treatment | 4/30 | 13% (0–25%) | | 11/30 | 41% (16–58%)[d] | |
| Isavuconazole | | | .6 | | | .20 |
| Monotherapy | 4/27 | 15% (0–27%) | | 9/27 | 52% (8–75%) | |
| Combination therapy | 3/13 | 23% (0–43%) | | 7/13 | 69% (13–89%) | |
| Isavuconazole TDM | | | .040 | | | .12 |
| Yes | 2/25 | 8% (0–18%) | | 9/25 | 41% (13–60%)[d] | |
| No | 5/15 | 33% (5–53%) | | 7/15 | 53% (13–74%)[d] | |
| Previous neurosurgery | | | .80[c] | | | .76[c] |
| Yes | 2/12 | 17% (0–35%) | | 4/12 | 36% (0–59%) | |
| No | 5/28 | 18% (2–31%) | | 12/28 | 62% (22–82%) | |




1ère ligne

Relais car échec

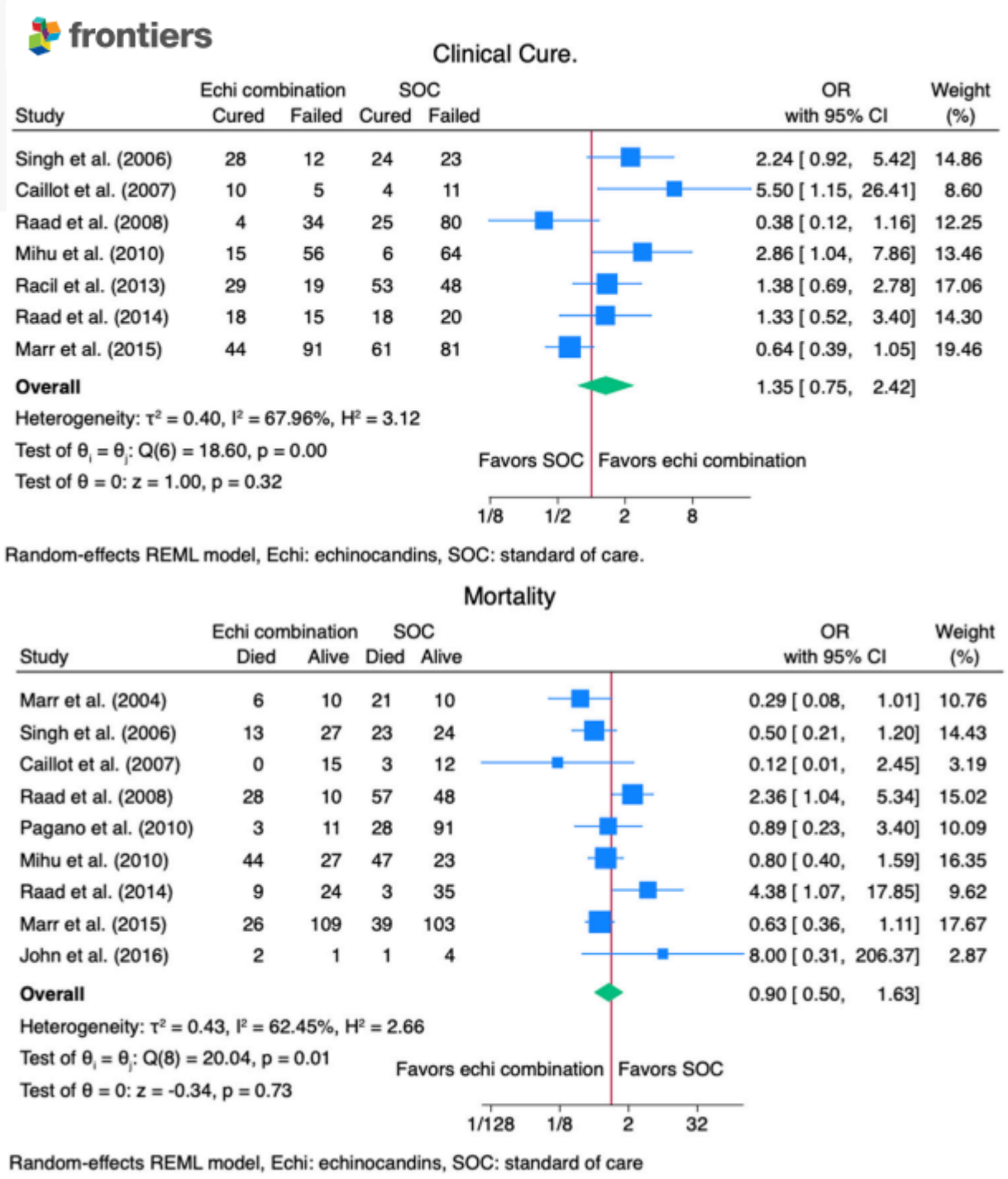
Relais pour autre raison

**Aucune différence significative**

# Effectiveness and safety of echinocandins combination therapy with the standard of care compared to the standard of care monotherapy for the treatment of invasive aspergillosis infection: a meta-analysis

Yazed Saleh Alsowaida[1]*, Bader Alshoumr[2], Shuroug A. Alowais[3], Khalid Bin Saleh[3], Alia Alshammari[4], Kareemah Alshurtan[5] and Haytham A. Wali[6]

- Méta-analyse : association Antifongique + echinocandine vs standard of care
- 10 articles inclus
  - Azolé + Candine vs Azolé
  - AmpB + Candine vs Azolé
  - Azolé + Candine vs AmpB
- Pas de différence d'efficacité, de mortalité, ni d'effet indésirable



[ Chest Infections Original Research ]

CHEST

# Low-Dose vs Conventional-Dose Trimethoprim-Sulfamethoxazole Treatment for Pneumocystis Pneumonia in Patients Not Infected With HIV

## A Multicenter, Retrospective Observational Cohort Study



*Tatsuya Nagai, MD; Hiroki Matsui, MPH; Haruka Fujioka, MD; Yuya Homma, MD; Ayumu Otsuki, MD; Hiroyuki Ito, MD, PhD; Shinichiro Ohmura, MD, PhD; Toshiaki Miyamoto, MD; Daisuke Shichi, MD; Watari Tomohisa, BHS; Yoshihito Otsuka, PhD; and Kei Nakashima, MD, PhD*

- Design
  - Cohorte rétrospective multicentrique de patients non VIH atteints de pneumocystose
  - 55 patients traités par cotrimoxazole à faible dose (< 12,5 mg/kg/j de TMP) vs 81 patients traités à dose conventionnelle (12,5 – 20 mg/kg/j de TMP)
  - Comparaison par IPTW
  - Critère de jugement principal : mortalité à J90

- Résultats
  - 55 % de femmes, âge médian 70,7 ans
  - Doses moyennes de TMP : 8,71 mg/kg/j et 17,78 mg/kg/j
  - Pas de différence significative sur la mortalité à J90
  - Moins d'effets secondaires dans le groupe faible dose

**TABLE 2** ] Outcome Data

| Outcome Data | Unadjusted Patient Cohort | | | Adjusted Patient Cohort | | |
|---|---|---|---|---|---|---|
| | Low Dose (n = 55) | Conventional Dose (n = 81) | *P* Value | Low Dose (n = 25.1) | Conventional Dose (n = 25.1) | *P* Value |
| Primary end point | | | | | | |
| 30-d mortality | 4 (7.3) | 14 (17.3) | .152 | 1.7 (6.7) | 4.6 (18.4) | .080 |
| Secondary end point | | | | | | |
| 180-d mortality | 10 (18.2) | 23 (28.4) | .246 | 3.7 (14.6) | 6.6 (26.1) | .141 |
| Occurrence of grade 3 or higher adverse events | | | | | | |
| Total | 16 (29.1) | 46 (56.8) | .003 | 7.5 (29.8) | 14.8 (59.0) | .005 |
| Skin rashes | 8 (14.5) | 14 (17.3) | .851 | 4.4 (17.5) | 3.8 (15.0) | .741 |
| Nausea | 0 (0.0) | 8 (9.9) | .042 | 0 (0.0) | 3.0 (11.9) | .005 |
| Leukopenia | 0 (0.0) | 1 (1.2) | > .999 | 0 (0.0) | 0.2 (0.8) | .325 |
| Anemia | 0 (0.0) | 2 (2.5) | .654 | 0 (0.0) | 0.9 (3.8) | .230 |
| Thrombocytopenia | 2 (3.6) | 2 (2.5) | > .999 | 1.0 (3.9) | 0.4 (1.5) | .365 |
| Increased ALT levels | 2 (3.6) | 3 (3.7) | > .999 | 0.4 (1.5) | 0.7 (2.6) | .607 |
| Hyponatremia | 4 (7.3) | 23 (28.4) | .005 | 1.4 (5.5) | 8.0 (31.9) | < .001 |
| Hyperkalemia | 3 (5.5) | 12 (14.8) | .152 | 1.1 (4.2) | 2.5 (9.9) | .199 |
| Continuity of initial regimen | | | | | | |
| Completion of initial treatment | 24 (43.6) | 23 (28.4) | .099 | 10.9 (43.3) | 7.4 (29.6) | .158 |
| Incomplete initial treatment | 31 (56.4) | 58 (71.6) | | 14.2 (56.7) | 17.7 (70.4) | |
| Completion of treatment by dosage reduction | 2 (3.6) | 6 (7.4) | ... | 0.5 (1.9) | 1.6 (6.5) | ... |
| Dosing interruption because of adverse events | 21 (38.2) | 39 (48.1) | ... | 10.9 (43.2) | 11.7 (46.6) | ... |
| Termination of treatment because of death | 3 (5.5) | 10 (12.3) | ... | 1.5 (5.8) | 2.9 (11.7) | ... |
| Others | 5 (9.1) | 3 (3.7) | ... | 1.4 (5.7) | 1.4 (5.5) | ... |

Categorical variables are expressed as No. (%). ALT = alanine aminotransferase.

# Prognostic value of serial (1,3)-β-D-glucan measurements in ICU patients with invasive candidiasis

Critical Care

Simone Carelli[1,2*], Brunella Posteraro[1,3], Riccardo Torelli[4], Elena De Carolis[4], Maria Sole Vallecoccia[5], Rikardo Xhemalaj[1,2], Salvatore Lucio Cutuli[1,2], Eloisa Sofia Tanzarella[1,2], Antonio Maria Dell'Anna[1,2], Gianmarco Lombardi[1,2], Fabiola Cammarota[1,2], Alessandro Caroli[1,2], Domenico Luca Grieco[1,2], Maurizio Sanguinetti[2,4], Massimo Antonelli[1,2†] and Gennaro De Pascale[1,2†]

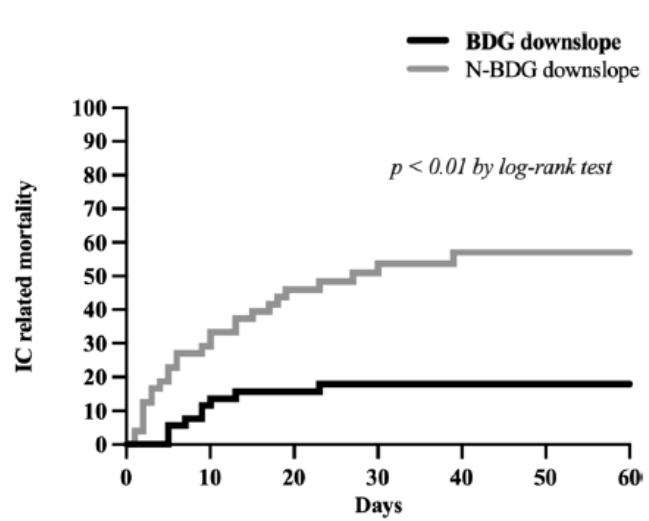
- Etude observationnelle rétrospective 2012-2022
- 103 patients inclus
  - 68 candidémies, 35 intra-abdominale
- Récupération de *sera* et réalisation de dosage de (1,3)β-D-Glucane en duplicat – intervalle d'au moins 72h

| Variable | No. (%) of patients | | | *p* value |
|---|---|---|---|---|
| | Total population (n = 103) | BDG downslope (*n* = 54) | N-BDG downslope (*n* = 49) | |
| *Demographics and comorbidities* | | | | |
| Age [IQR], years | 67 [52–77] | 67 [52–79] | 67 [51–74] | 0.60 |
| Males | 62 (60) | 32 (59) | 30 (61) | 1.00 |
| Chronic heart failure | 17 (17) | 5 (9) | 12 (24) | 0.06 |
| Chronic obstructive pulmonary disease | 26 (25) | 10 (19) | 16 (33) | 0.12 |
| Chronic renal failure | 25 (24) | 8 (15) | 17 (35) | **0.02** |
| Diabetes | 25 (24) | 10 (19) | 15 (31) | 0.17 |
| Chronic liver disease | 6 (6) | 3 (6) | 3 (6) | 1.00 |
| Immunosuppressive status | 43 (42) | 21 (39) | 22 (45) | 0.34 |
| SAPS II score at ICU admission [IQR] | 47 [35–62] | 45 [30–57] | 51 [41–63] | 0.08 |
| *Presenting features* | | | | |
| Candidemia | 68 (66) | 30 (56) | 38 (78) | **0.02** |
| *Catheter-related candidemia* | *18 (17)* | *7 (13)* | *11 (22)* | *0.30* |
| Intrabdominal infection | 35 (34) | 24 (44) | 11 (22) | **0.02** |
| SOFA score at infection [IQR] | 8 [5–11] | 7 [4–10] | 9 [6–11] | 0.08 |
| Septic shock at occurrence of infection | 67 (65) | 33 (61) | 34 (69) | 0.41 |
| ICU stay before infection [IQR], days | 2 [0–14] | 2 [0–14] | 1 [0–20] | 0.99 |
| *Microbiologic features* | | | | |
| Initial BDG [IQR], pg/ml | 500 [254–587] | 409 [253–720] | 500 [275–500] | 0.90 |
| Initial BDG > 500 pg/ml | 51 (50) | 24 (44) | 27 (55) | 0.33 |
| End-of-treatment BDG [IQR], pg/ml | 296 [121–500] | 132 [80–296] | 500 [426–566] | < **0.01** |
| End-of-treatment BDG > 500 pg/ml | 41 (40) | 6 (11) | 35 (71) | < **0.01** |
| Number of BDG determinations [IQR] | 3 [2–5] | 4 [2–6] | 3 [2–5] | 0.29 |
| *C. albicans* | 63 (61) | 35 (65) | 28 (57) | 0.54 |
| *C. krusei* | 4 (4) | 1 (2) | 3 (6) | 0.34 |
| *C. glabrata* | 12 (12) | 6 (11) | 6 (12) | 1.00 |
| *C. tropicalis* | 11 (11) | 8 (15) | 3 (6) | 0.20 |
| *C. parapsilosis* | 17 (17) | 7 (13) | 10 (20) | 0.43 |
| *C. dublinensis* | 3 (3) | 1 (2) | 2 (4) | 0.60 |
| More than one *Candida* spp | 7 (7) | 5 (9) | 2 (4) | 0.27 |

# Prognostic value of serial (1,3)-β-D-glucan measurements in ICU patients with invasive candidiasis

Critical Care

Simone Carelli[1,2*], Brunella Posteraro[1,3], Riccardo Torelli[4], Elena De Carolis[4], Maria Sole Vallecoccia[5], Rikardo Xhemalaj[1,2], Salvatore Lucio Cutuli[1,2], Eloisa Sofia Tanzarella[1,2], Antonio Maria Dell'Anna[1,2], Gianmarco Lombardi[1,2], Fabiola Cammarota[1,2], Alessandro Caroli[1,2], Domenico Luca Grieco[1,2], Maurizio Sanguinetti[2,4], Massimo Antonelli[1,2†] and Gennaro De Pascale[1,2†]




| Variable | No. (%) of patients | | | *p* value |
|---|---|---|---|---|
| | Total population (n = 103) | BDG downslope (*n* = 54) | N-BDG downslope (*n* = 49) | |
| *Therapeutic aspects* | | | | |
| Time from BDG determination to treatment [IQR], hours | 12 [0–42] | 7 [0–24] | 24 [0–48] | 0.69 |
| Initial inappropriate antifungal therapy | 43 (42) | 20 (37) | 23 (47) | 0.33 |
| Azoles | 21 (20) | 10 (19) | 11 (22) | 0.40 |
| Echinocandins | 65 (63) | 33 (61) | 32 (65) | 0.57 |
| Amphotericin B | 17 (17) | 9 (17) | 8 (16) | 0.52 |
| Duration of antifungal therapy [IQR], days | 13 [7–20] | 14 [8–21] | 13 [5–20] | 0.30 |
| Source control interventions | 52 (50) | 31 (57) | 21 (43) | 0.17 |
| *Clinical and microbiological outcomes* | | | | |
| Invasive candidiasis related mortality | 35 (34) | 9 (17) | 26 (53) | **< 0.01** |
| ICU mortality | 54 (52) | 23 (43) | 31 (63) | **0.04** |
| Hospital mortality | 66 (64) | 30 (56) | 36 (73) | 0.05 |
| ICU length of stay after infection [IQR], days | 14 [6–26] | 18 [8–30] | 12 [5–19] | **0.01** |
| Hospital length of stay after infection [IQR], days | 27 [10–52] | 35 [13–66] | 19 [6–40] | **< 0.01** |

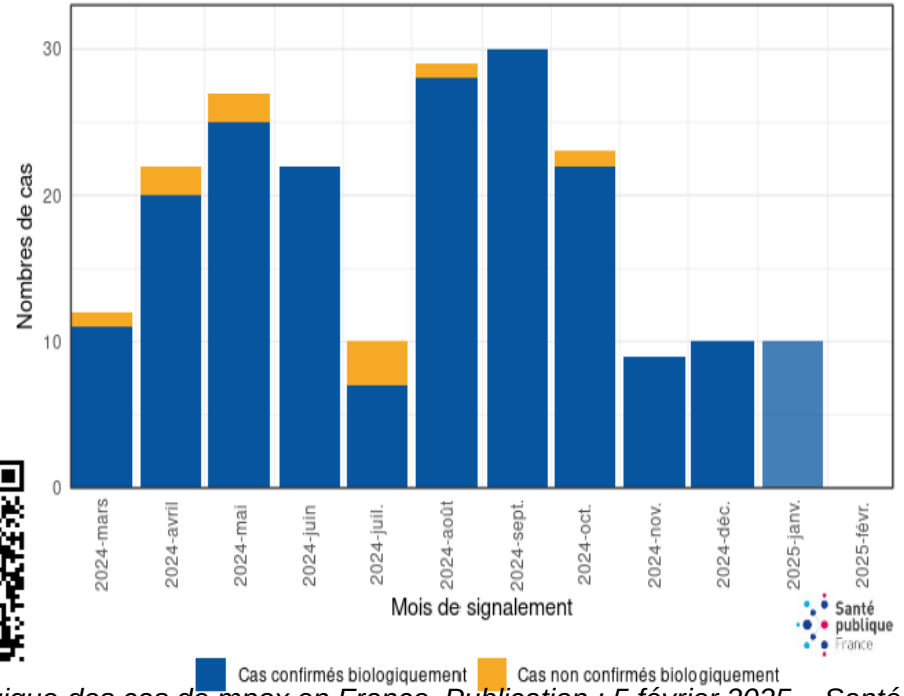
| Variable | No. (%) of patients | | Univariate analysis | | Multivariate analysis | |
|---|---|---|---|---|---|---|
| | Alive (*n* = 68) | Deceased (*n* = 35) | HR (95% CI) | *p* value | HR (95% CI) | *p* value |
| Chronic renal failure | 14 (21) | 11 (31) | 1.23 [0.60–2.53] | 0.58 | | |
| Diabetes | 16 (24) | 9 (26) | 0.92 [0.43–1.96] | 0.82 | | |
| Chronic liver disease | 2 (3) | 4 (11) | 3.04 [1.06–8.70] | **0.04** | 7.27 [2.33–22.66] | **< 0.01** |
| Immunosuppressive status | 29 (43) | 14 (40) | 1.15 [0.59–2.27] | 0.68 | | |
| SAPS II score at ICU admission [IQR] | 45 [30–61] | 51 [41–63] | 1.02 [0.99–1.03] | **0.10** | 1.01 [0.99–1.03] | 0.21 |
| *Presenting features* | | | | | | |
| Candidemia | 43 (63) | 25 (71) | 1.72 [0.82–3.61] | 0.15 | | |
| *Catheter related candidemia* | *12 (18)* | *6 (17)* | *0.94 [0.39–2.28]* | *0.90* | | |
| Intrabdominal infection | 25 (37) | 10 (29) | 0.58 [0.28–1.22] | 0.15 | | |
| SOFA score at infection [IQR] | 7 [4–9] | 10 [7–12] | 1.02 [0.99–1.05] | 0.23 | | |
| Septic shock at occurrence of infection | 37 (54) | 30 (86) | 3.45 [1.34–8.90] | **0.01** | 3.24 [1.25–8.44] | **0.02** |
| *Microbiologic features* | | | | | | |
| Initial BDG [IQR], pg/ml | 379 [216–610] | 500 [368–500] | 1.04 [0.98–1.03] | 0.87 | | |
| Initial BDG > 500 pg/ml | 29 (43) | 22 (63) | 2.38 [1.19–7.75] | **0.01** | | |
| BDG downslope | 45 (66) | 9 (26) | 0.23 [0.11–0.49] | **< 0.01** | 0.19 [0.09–0.43] | **< 0.01** |
| *C. albicans* | 45 (66) | 18 (51) | 0.56 [0.28–1.11] | **0.10** | 0.71 [0.35–1.45] | 0.35 |
| Non-*C. albicans* | 23 (34) | 17 (49) | 1.78 [0.90–3.52] | **0.10** | | |
| More than one *Candida* spp | 7 (11) | 0 (0) | 0.09 [0.02–3.07] | 0.15 | | |

# Virologie

# Mpox in people with past infection or a complete vaccination course: a global case series

*Aniruddha Hazra, Jason Zucker, Elizabeth Bell, John Flores, Leanna Gordon, Oriol Mitjà, Clara Suñer, Adrien Lemaignen, Simon Jamard, Silvia Nozza, Achyuta V Nori, Edgar Pérez-Barragán, Juan Carlos Rodríguez-Aldama, Jose Louis Blanco, Constance Delaugerre, Dan Turner, Irene Fuertes, Viviana Leiro, Sharon L Walmsley, Chloe M Orkin, on behalf of SHARE-NET writing group**

- Étude observationnelle rétrospective internationale
- 8 cas de réinfection
- 30 cas d'infection après vaccination
- Symptômes moins marqués, moins florides chez les patients immunisés




| | Mpox after first infection | | Mpox infection after two MVA-BVN vaccines (n=30) |
|---|---|---|---|
| | First infection (n=8) | Second infection (n=8) | |
| Type of rash | | | |
| Vesiculopustular rash | 4/8 (50%) | 3/8 (38%) | 7/30 (23%) |
| Multiple ulcers | 4/8 (50%) | 3/8 (38%) | 9/30 (30%) |
| Single ulcer | 0/8 | 2/8 (25%) | 12/30 (40%) |
| Umbilicated lesions | 0/8 | 0/8 | 2/30 (7%) |
| Number of lesions | 10 (3–17); 2–30 | 5 (1–16); 1–50 | 2 (1–5); 1–50 |
| Duration of rash, days | 21·5 (18–30); 15–35; n=6 | 15 (5–20); 5–21; n=6 | 14 (10–16); 5–21; n=15 |
| Anogenital lesion present | | | |
| Anogenital mucosal lesions | 2/8 (25%) | 4/7 (57%) | 4/26 (15%) |
| Anogenital skin lesions | 4/8 (50%) | 3/7 (43%) | 15/26 (58%) |
| Both mucosal and skin lesions | 2/8 (25%) | 0/7 | 7/26 (27%) |
| Oral lesion present | | | |
| Mucosal lesions | 3/3 (100%) | 0 | 2/3 (67%) |
| Peri-oral lesions | 0 | 0 | 0 |
| Both | 0 | 0 | 1/3 (33%) |
| Non-genital lesion present | | | |
| Trunk or limbs, or both | 5/6 (83%) | 2/2 (100%) | 4/6 (66%) |
| Face | 1/6 (17%) | 0 | 2/6 (33%) |
| Ocular | 0 | 0 | 0 |
| Exanthem | 0 | 0 | 0 |
| Did the patient receive mpox anti-viral (tecovirimat)? | | | |
| No | 6/6 (100%) | 6/6 (100%) | 28/30 (93%) |
| Yes | 0/6 | 0/6 | 2/30 (7%) |

Data are n/N (%) or median (IQR); range. MVA-BN=Modified Vaccinia Ankara-Bavarian Nordic.

***Table 2:*** **Clinical characteristics of cases**

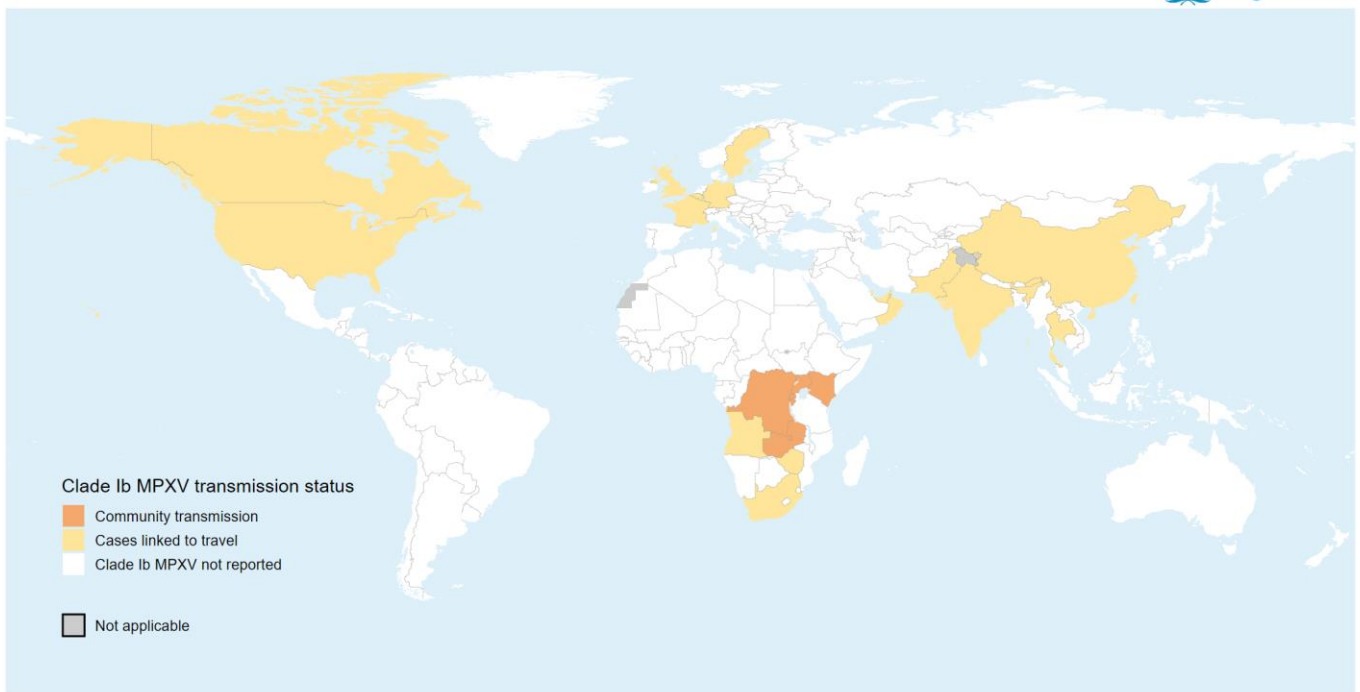
*lan épidémiologique des cas de mpox en France. Publication : 5 février 2025 – Santé publique France*

Santé publique France

# Face au premier cas de Mpox de clade I b identifié en France, les autorités sanitaires rappellent l'importance de la vaccination pour les publics cibles

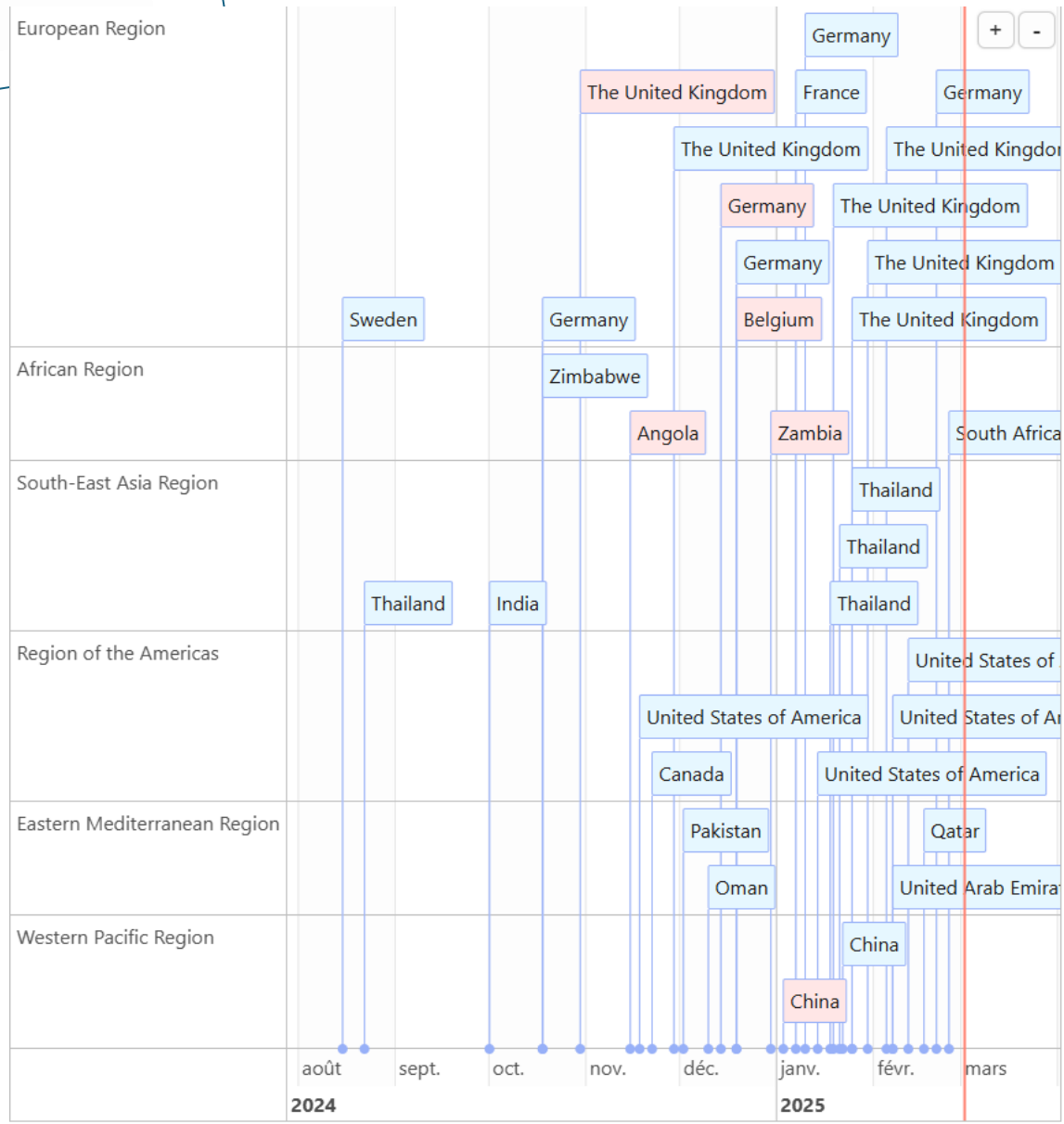
## Global transmission status of clade Ib MPXV

World Health Organization




The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization
Map Production: WHO Health Emergencies Programme

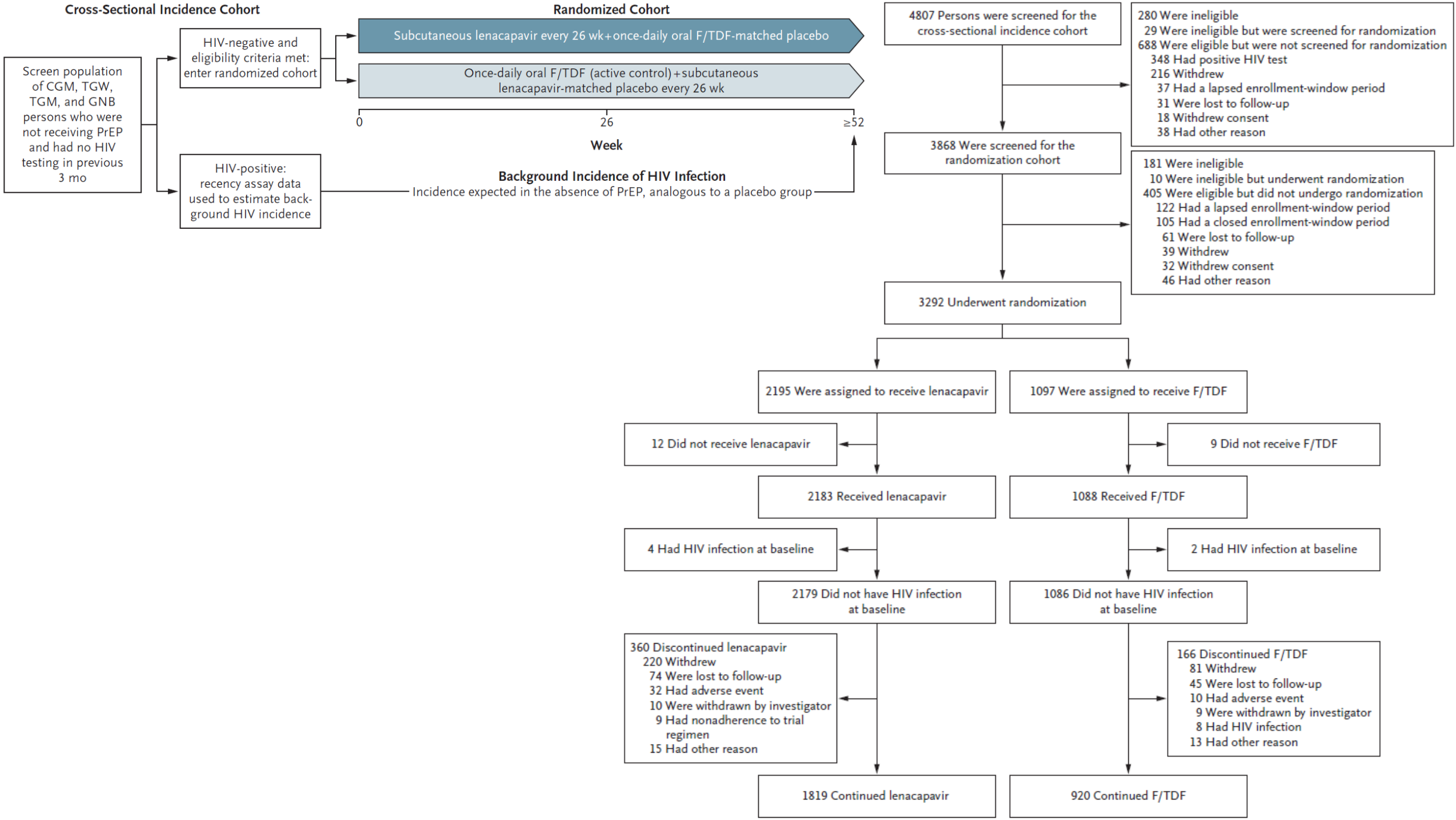



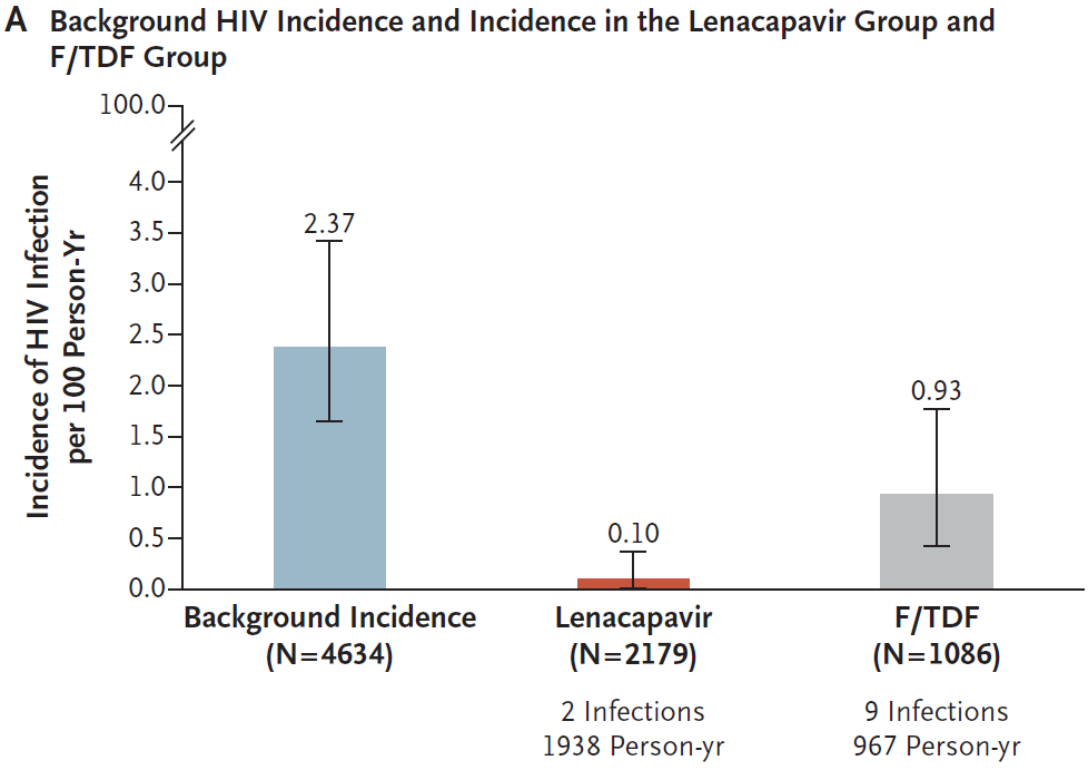
The NEW ENGLAND JOURNAL of MEDICINE

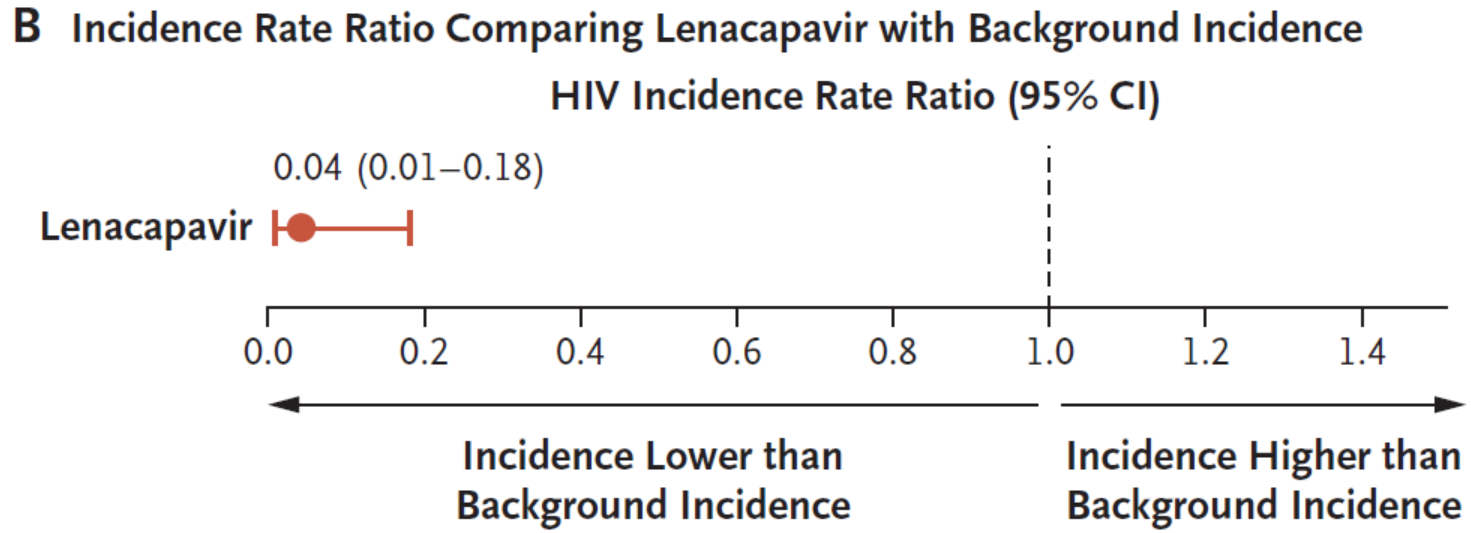
ORIGINAL ARTICLE

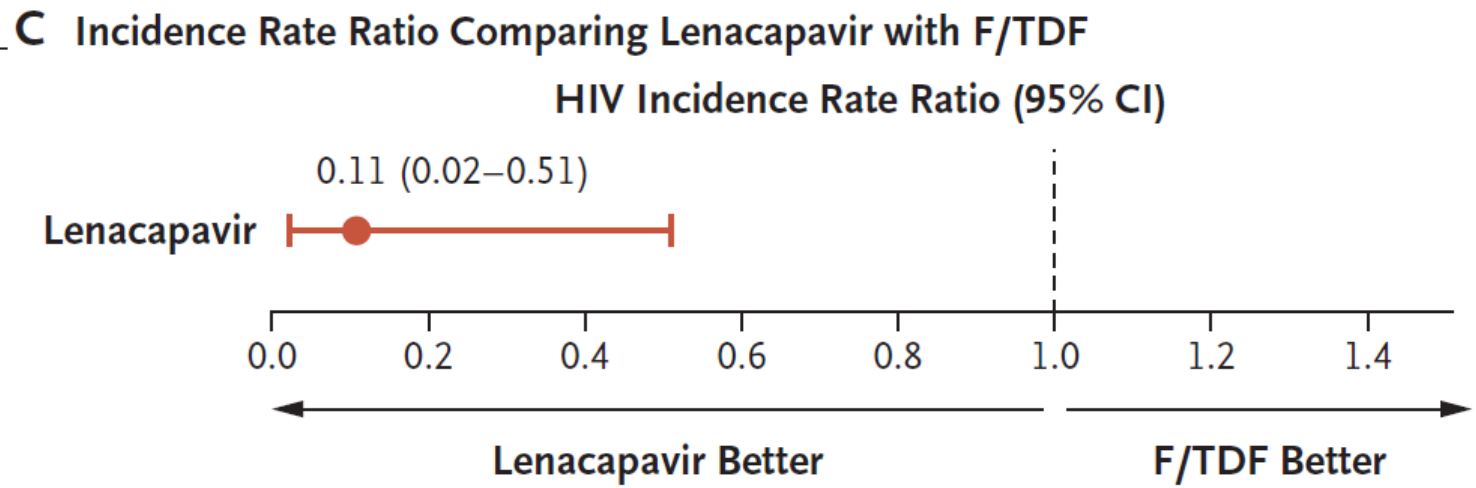
# Twice-Yearly Lenacapavir for HIV Prevention in Men and Gender-Diverse Persons

C.F. Kelley, M. Acevedo-Quiñones, A.L. Agwu, A. Avihingsanon, P. Benson, J. Blumenthal, C. Brinson, C. Brites, P. Cahn, V.D. Cantos, J. Clark, M. Clement, C. Creticos, G. Crofoot, R.S. Diaz, S. Doblecki-Lewis, J.A. Gallardo-Cartagena, A. Gaur, B. Grinsztejn, S. Hassler, J.C. Hinojosa, T. Hodge, R. Kaplan, M. Lacerda, A. LaMarca, M.H. Losso, J. Valdez Madruga, K.H. Mayer, A. Mills, K. Mounzer, N. Ndlovu, R.M. Novak, A. Perez Rios, N. Phanuphak, M. Ramgopal, P.J. Ruane, J. Sánchez, B. Santos, P. Schine, T. Schreibman, L.S.Y. Spencer, O.T. Van Gerwen, R. Vasconcelos, J.G. Vasquez, Z. Zwane, S. Cox, C. Deaton, R. Ebrahimi, P. Wong, R. Singh, L.B. Brown, C.C. Carter, M. Das, J.M. Baeten, and O. Ogbuagu, for the PURPOSE 2 Study Team*


Cross-Sectional Incidence Cohort
Randomized Cohort
Screen population of CGM, TGW, TGM, and GNB persons who were not receiving PrEP and had no HIV testing in previous 3 mo
HIV-negative and eligibility criteria met: enter randomized cohort
HIV-positive: recency assay data used to estimate background HIV incidence
Subcutaneous lenacapavir every 26 wk+once-daily oral F/TDF-matched placebo
Once-daily oral F/TDF (active control)+subcutaneous lenacapavir-matched placebo every 26 wk
0
26
≥52
Week
Background Incidence of HIV Infection
Incidence expected in the absence of PrEP, analogous to a placebo group
4807 Persons were screened for the cross-sectional incidence cohort
280 Were ineligible
29 Were ineligible but were screened for randomization
688 Were eligible but were not screened for randomization
348 Had positive HIV test
216 Withdrew
37 Had a lapsed enrollment-window period
31 Were lost to follow-up
18 Withdrew consent
38 Had other reason
3868 Were screened for the randomization cohort
181 Were ineligible
10 Were ineligible but underwent randomization
405 Were eligible but did not undergo randomization
122 Had a lapsed enrollment-window period
105 Had a closed enrollment-window period
61 Were lost to follow-up
39 Withdrew
32 Withdrew consent
46 Had other reason
3292 Underwent randomization
2195 Were assigned to receive lenacapavir
1097 Were assigned to receive F/TDF
12 Did not receive lenacapavir
9 Did not receive F/TDF
2183 Received lenacapavir
1088 Received F/TDF
4 Had HIV infection at baseline
2 Had HIV infection at baseline
2179 Did not have HIV infection at baseline
1086 Did not have HIV infection at baseline
360 Discontinued lenacapavir
220 Withdrew
74 Were lost to follow-up
32 Had adverse event
10 Were withdrawn by investigator
9 Had nonadherence to trial regimen
15 Had other reason
166 Discontinued F/TDF
81 Withdrew
45 Were lost to follow-up
10 Had adverse event
9 Were withdrawn by investigator
8 Had HIV infection
13 Had other reason
1819 Continued lenacapavir
920 Continued F/TDF


A Background HIV Incidence and Incidence in the Lenacapavir Group and F/TDF Group
Incidence of HIV Infection per 100 Person-Yr
100.0
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
2.37
0.10
0.93
Background Incidence (N=4634)
Lenacapavir (N=2179)
2 Infections
1938 Person-yr
F/TDF (N=1086)
9 Infections
967 Person-yr


B Incidence Rate Ratio Comparing Lenacapavir with Background Incidence
HIV Incidence Rate Ratio (95% CI)
0.04 (0.01–0.18)
Lenacapavir
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
Incidence Lower than Background Incidence
Incidence Higher than Background Incidence


C Incidence Rate Ratio Comparing Lenacapavir with F/TDF
HIV Incidence Rate Ratio (95% CI)
0.11 (0.02–0.51)
Lenacapavir
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
Lenacapavir Better
F/TDF Better

Clinical Infectious Diseases

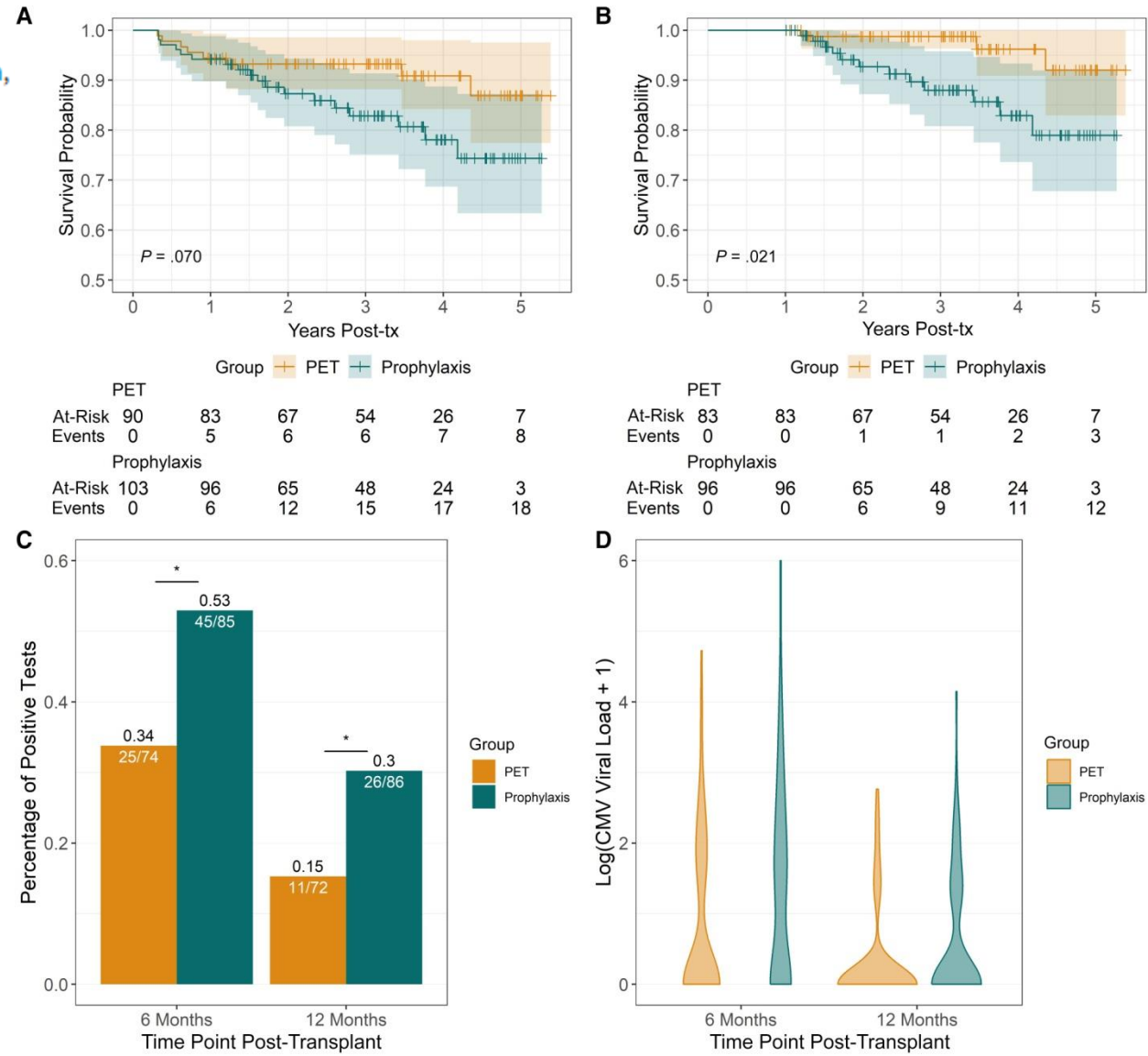
JOURNAL ARTICLE

# Association of Cytomegalovirus (CMV) DNAemia With Long-Term Mortality in a Randomized Trial of Preemptive Therapy and Antiviral Prophylaxis for Prevention of CMV Disease in High-Risk Donor Seropositive, Recipient Seronegative Liver Transplant Recipients FREE

Lakshin Kumar, Sayan Dasgupta, Cristina Murray-Krezan, Nina Singh, Robert M Rakita, Ajit P Limaye ✉ Author Notes

- Complément de l'essai randomisé **CAPSIL** (JAMA2020)
  - Évaluation traitement préemptif vs prophylaxie chez le greffé hépatique
  - Suivi à 1 an, pas de différence significative
- **Prophylaxie** : traitement par Valganciclovir 3 mois
- **PET** : Valganciclovir 7j puis dosage hebdomadaire de la CV CMV pendant 3 mois, si positive : valganciclovir jusqu'à 2 CV négatives

- 205 patients inclus : 100 PET, 105 prophyalxie

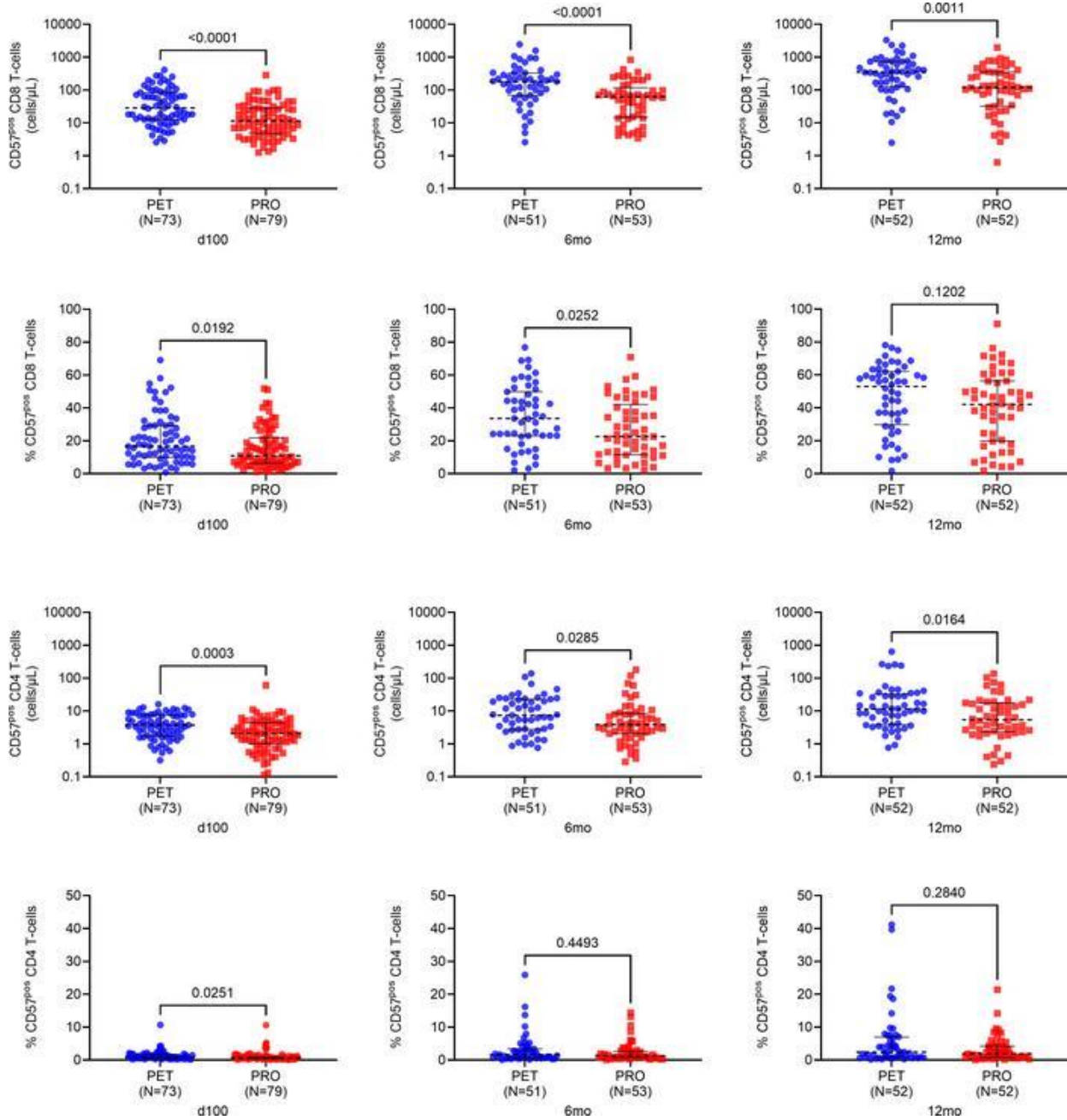


# Cytomegalovirus immunity in high-risk liver transplant recipients following preemptive antiviral therapy versus prophylaxis

JCI insight

Danniel Zamora,[1,2] Sayan Dasgupta,[2] Terry Stevens-Ayers,[2] Bradley Edmison,[2] Drew J. Winston,[3] Raymund R. Razonable,[4] Aneesh K. Mehta,[5] G. Marshall Lyon,[5] Michael Boeckh,[1,2] Nina Singh,[6,7] David M. Koelle,[1,2,8,9,10] and Ajit P. Limaye[1,2]

- Complément de l'essai randomisé **CAPSIL** (JAMA2020)
- PET : meilleur réponse lymphocytaire CD8, CD4, NK, anticorps neutralisant par rapport aux patients sous prophylaxie
- Réponse d'autant plus importante en cas d'exposition antigénique (réplication virale)
- Réponse stable à 1 an



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Infectious Disease Practice

# Validation of the encephalitis criteria in adults with a suspected central nervous system infection: An updated score

Steven L. Staal [1], Sabine E. Olie [1], I-PACE study group [2], Diederik van de Beek, Matthijs C. Brouwer *

*Amsterdam UMC, University of Amsterdam, Department of Neurology, Amsterdam Neuroscience, Meibergdreef 9, Amsterdam, the Netherlands*

| |
|---|
| Major Criterion (required): |
| Patients presenting to medical attention with altered mental status (defined as decreased or altered level of consciousness, lethargy or personality change) lasting ≥24 h with no alternative cause identified. |
| Minor Criteria (2 required for possible encephalitis; ≥3 required for probable or confirmed[a] encephalitis): |
| Documented fever ≥38° C (100.4°F) within the 72 h before or after presentation[b] |
| Generalized or partial seizures not fully attributable to a preexisting seizure disorder[c] |
| New onset of focal neurologic findings |
| CSF WBC count ≥5/cubic mm[d] |
| Abnormality of brain parenchyma on neuroimaging suggestive of encephalitis that is either new from prior studies or appears acute in onset[e] |
| Abnormality on electroencephalography that is consistent with encephalitis and not attributable to another cause.[f] |

- <u>Objectif</u>
  - Validation des critères diagnostiques de l'encéphalite de 2013
  - Affinage si performances jugées insuffisantes

- <u>Design</u>
  - Inclusion de patients provenant de deux cohortes prospectives
  - Population : patients ≥ 16 ans avec suspicion initiale d'infection du SNC et ayant eu une ponction lombaire aux urgences ou en hospitalisation

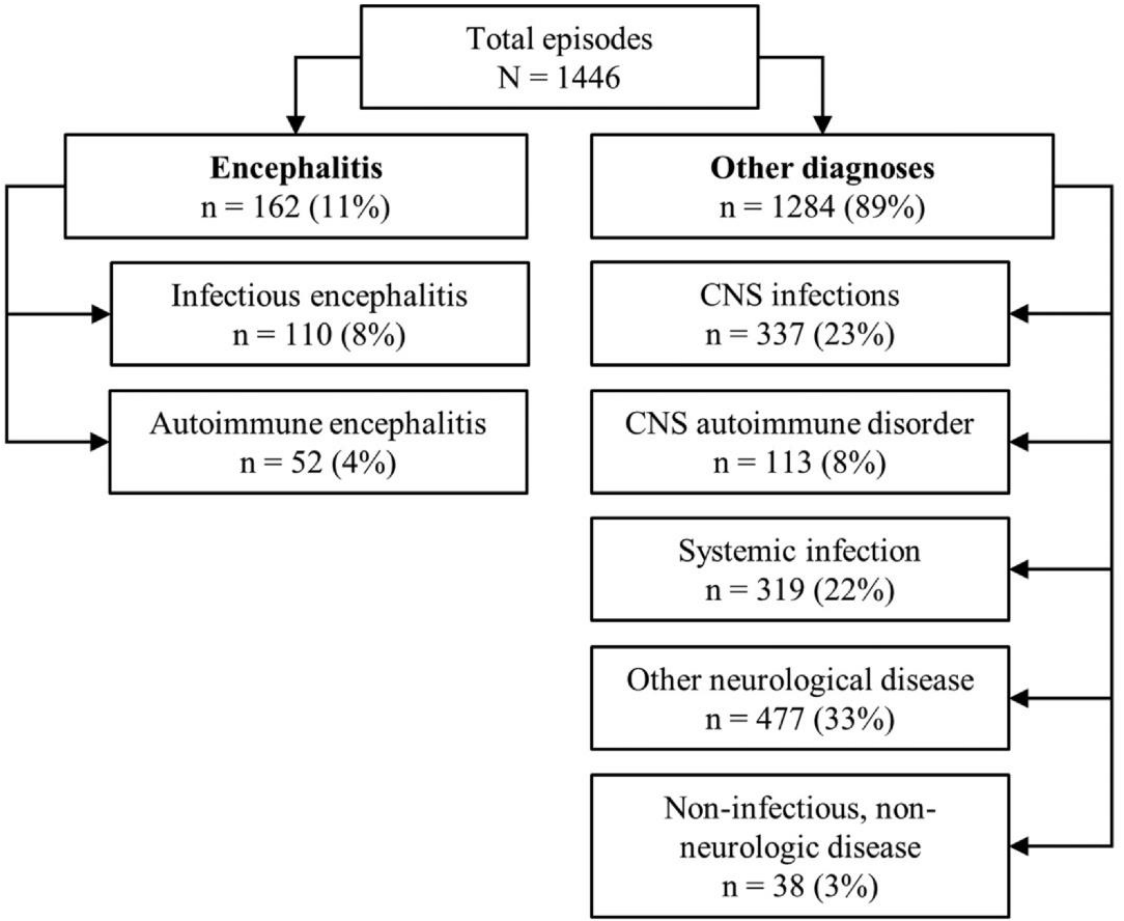


**Table 1**
Demographics and clinical characteristics of all episodes suspected of a CNS infection.

| | | | Encephalitis | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Overall | | All cases | | Infectious | | Autoimmune | | Other diagnoses | |
| | (n = 1446) | | (n = 162) | | (n = 110) | | (n = 52) | | (n = 1284) | |
| Age, years | 54 | (37–68) | 58 | (42–69) | 59 | (44–68) | 58 | (36–69) | 53 | (36–67) |
| Sex, female | 705/1446 | (49%) | 63/162 | (39%) | 38/110 | (35%) | 25/52 | (48%) | 642/1284 | (50%) |
| Confirmed encephalitis | 89/1446 | (6%) | 89/162 | (55%) | 80/110 | (73%) | 9/52 | (17%) | 0/1284 | (0%) |
| **Major criterion:** | | | | | | | | | | |
| Altered mental status, ≥24 h | 339/1395 | (24%) | 78/158 | (49%) | 51/107 | (48%) | 27/51 | (53%) | 261/1237 | (21%) |
| **Minor criterion:** | | | | | | | | | | |
| Fever, ≥38 °C | 684/1434 | (48%) | 76/161 | (47%) | 62/110 | (56%) | 14/51 | (28%) | 608/1273 | (48%) |
| Seizures | 210/1446 | (15%) | 48/162 | (30%) | 33/110 | (30%) | 15/52 | (29%) | 162/1284 | (13%) |
| Focal neurologic findings | 614/1446 | (43%) | 90/162 | (56%) | 52/110 | (47%) | 38/52 | (73%) | 524/1284 | (41%) |
| Elevated CSF leukocytes, ≥5 cells/mm$^3$ | 719/1437 | (50%) | 132/157 | (84%) | 93/107 | (87%) | 39/50 | (78%) | 587/1280 | (46%) |
| Abnormalities on neuroimaging | 123/1196 | (10%) | 62/156 | (40%) | 37/105 | (35%) | 25/51 | (49%) | 61/1040 | (6%) |
| Abnormalities on EEG | 126/166 | (76%) | 36/47 | (77%) | 19/25 | (76%) | 17/22 | (77%) | 90/119 | (76%) |
| **Cases meeting criteria for:** | | | | | | | | | | |
| Possible encephalitis | 216/1446 | (15%) | 66/162 | (41%) | 46/110 | (42%) | 20/52 | (38%) | 150/1284 | (12%) |
| Probable encephalitis | 102/1446 | (7%) | 43/162 | (27%) | 29/110 | (26%) | 14/52 | (27%) | 59/1284 | (5%) |

CNS = central nervous system, CSF = cerebrospinal fluid, EEG = electroencephalography.

**Table 2**
Test characteristics of the diagnostic criteria for encephalitis as proposed by the International Encephalitis Consortium in episodes suspected of a CNS infection.

**A. Clinical diagnosis of encephalitis**

| | Encephalitis (n = 162) | | Other diagnoses (n = 1284) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Criteria + | Criteria - | Criteria + | Criteria - | Sensitivity | (95% CI) | Specificity | (95% CI) | PPV | (95% CI) | NPV | (95% CI) |
| Possible encephalitis | 66 | 96 | 150 | 1134 | 41% | 33-49 | 88% | 86-90 | 31% | 26-36 | 92% | 91-93 |
| Probable encephalitis | 43 | 119 | 59 | 1225 | 27% | 20-34 | 95% | 94-96 | 42% | 34-51 | 91% | 90-92 |

**B. Confirmed encephalitis**

| | Encephalitis N = 89 | | Other diagnoses N = 1284 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Criteria + | Criteria - | Criteria + | Criteria - | Sensitivity | (95% CI) | Specificity | (95% CI) | PPV | (95% CI) | NPV | (95% CI) |
| Possible encephalitis | 39 | 50 | 150 | 1134 | 44% | 33–55 | 88% | 86–90 | 21% | 16–26 | 96% | 95–96 |
| Probable encephalitis | 25 | 64 | 59 | 1225 | 28% | 19–39 | 95% | 94–96 | 30% | 22–39 | 95% | 94–96 |

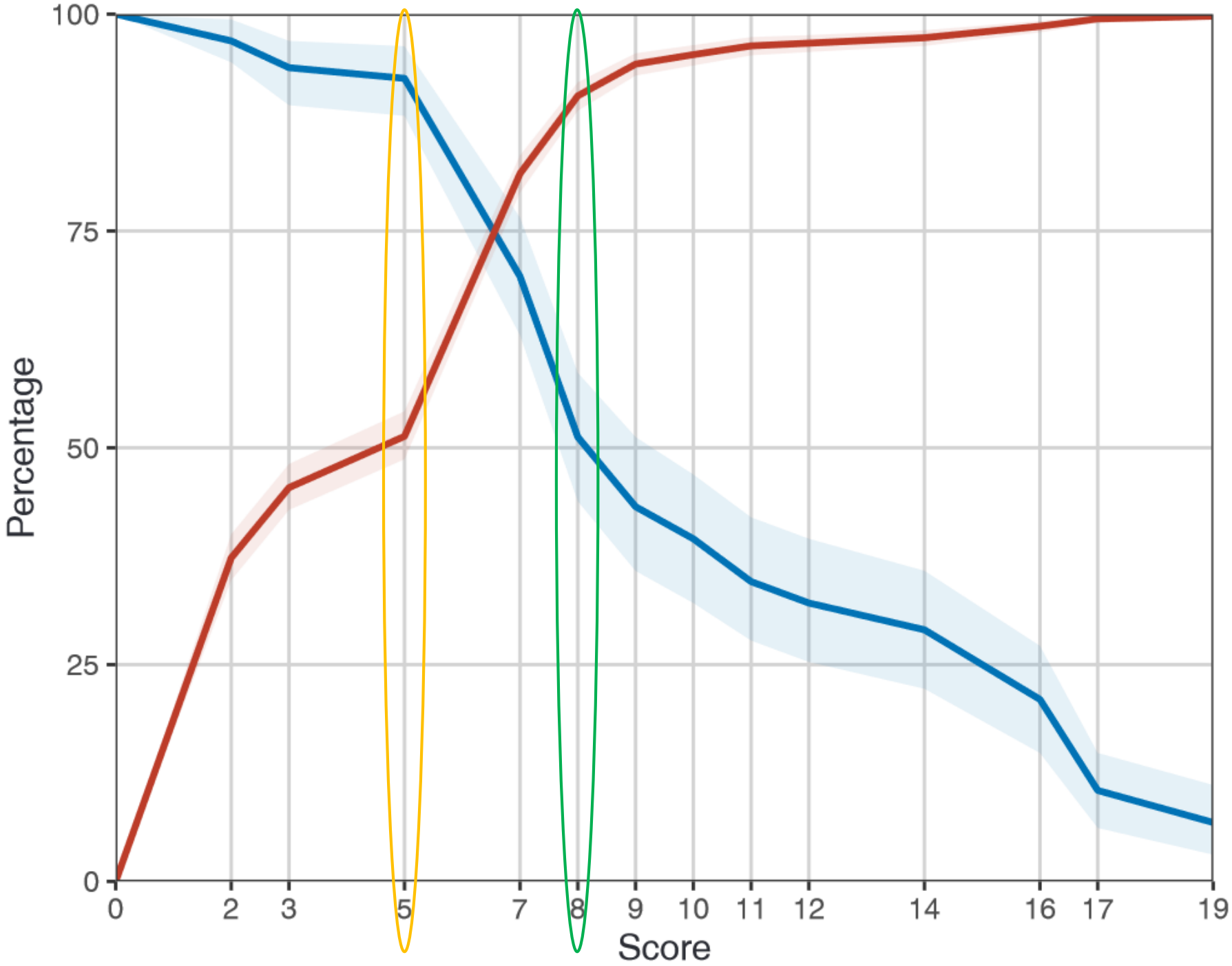
CNS = central nervous system, CI = confidence interval, PPV = positive predictive value, NPV = negative predictive value.

**Table 3**
Odds per diagnostic encephalitis criterion in a univariable and multivariable model for episodes with a clinical diagnosis of encephalitis[a].

| | Univariable Analysis | | Final Multivariable Model | | |
|---|---|---|---|---|---|
| | Odds | 95% CI | Odds | 95% CI | Updated weight |
| **Encephalitis criteria**[b] | | | | | |
| Altered mental status, ≥24 h | 3.65 | (2.59–5.13) | 2.38 | (1.58–3.58) | 2 |
| Fever, ≥38 °C | 0.98 | (0.70–1.36) | - | | |
| Seizures | 2.92 | (1.99–4.22) | 2.69 | (1.69–4.25) | 3 |
| Focal neurologic findings | 1.81 | (1.31–2.53) | - | | |
| Elevated CSF leukocytes, ≥5 cells/mm3 | 6.23 | (4.08–9.90) | 5.48 | (3.42–9.13) | 5 |
| Abnormalities on neuroimaging | 10.59 | (7.02–16.02) | 9.21 | (5.77–14.80) | 9 |
| Abnormalities on EEG | 1.05 | (0.49–2.41) | - | | |
| **Maximum score** | | | | | **19** |

**Table 4**
Odds per diagnostic encephalitis criterion in a univariable and multivariable model for episodes with a confirmed diagnosis of encephalitis[a].

| | Univariable Analysis | | Final Multivariable Model | | |
|---|---|---|---|---|---|
| | Odds | 95% CI | Odds | 95% CI | Updated weight |
| **Encephalitis criteria**[b] | | | | | |
| Altered mental status, ≥24 h | 3.57 | (2.28–5.57) | 2.23 | (1.33–3.74) | 2 |
| Fever, ≥38 °C | 1.17 | (0.76–1.80) | - | | |
| Seizures | 3.02 | (1.82–4.83) | 2.67 | (1.49–4.68) | 3 |
| Focal neurologic findings | 1.55 | (1.01–2.39) | - | | |
| Elevated CSF leukocytes, ≥5 cells/mm3 | 6.72 | (3.82–12.80) | 5.61 | (3.01–11.30) | 6 |
| Abnormalities on neuroimaging | 10.91 | (6.55–18.10) | 8.22 | (4.65–14.49) | 8 |
| Abnormalities on EEG | 1.69 | (0.58–6.15) | - | | |
| **Maximum score** | | | | | **19** |




**Encéphalite possible (Se 93 %, Sp 51 %)**

**Encéphalite probable (Se 51 %, Sp 91 %)**

# Vaccinologie

**RECOMMANDER**
LES BONNES PRATIQUES

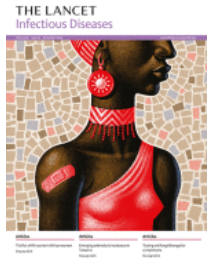
HAS
HAUTE AUTORITÉ DE SANTÉ

**RECOMMANDATION**

# Borréliose de Lyme et autres maladies vectorielles à tiques (MVT)

Document en attente d'endossement et non soumis à la relecture ortho-graphique et typographique

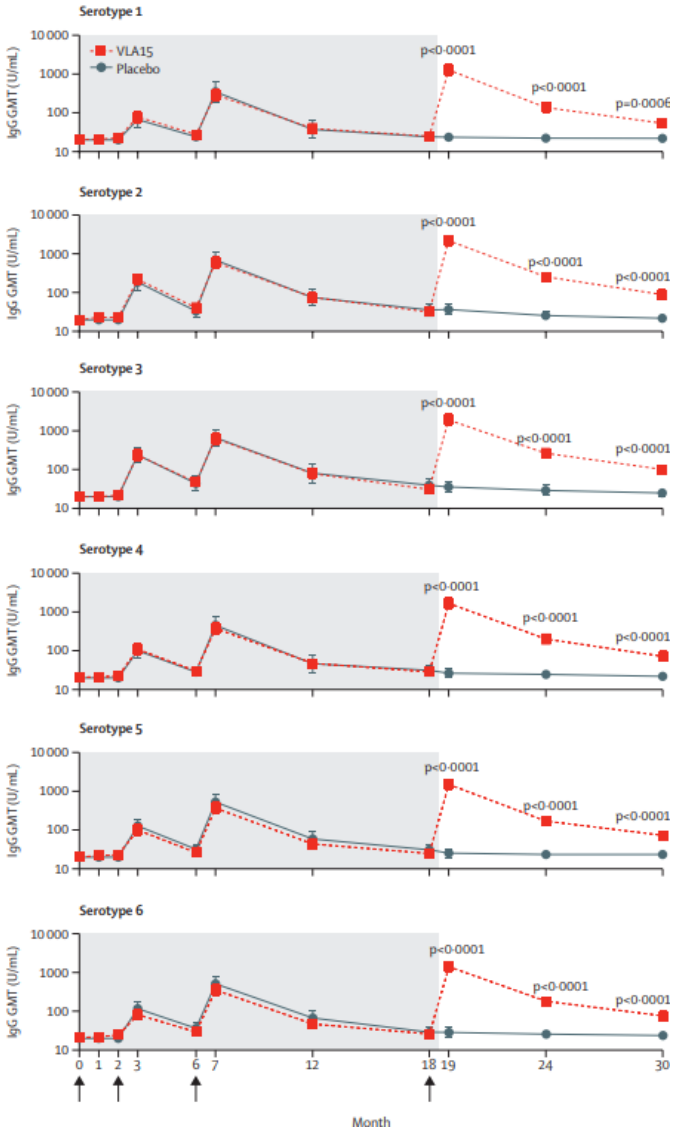
→ 18 février 2025




## Immunogenicity and safety of an 18-month booster dose of the VLA15 Lyme borreliosis vaccine candidate after primary immunisation in healthy adults in the USA: results of the booster phase of a randomised, controlled, phase 2 trial

Santhosh Kumar Ghadge, Martina Schneider, Katrin Dubischar, Laura Wagner, Vera Kadlecek, Michaela Obersriebnig, Romana Hochreiter, Anton Klingler, Julian Larcher-Senn, Ulla Derhaschnig, Wolfgang Bender, Susanne Eder-Lingelbach, Nicole Bézay

- Essai randomisé contrôlé en complément de l'essai Phase 2 évaluant le vaccin VLA15
- Vaccin protéique hexavalent ciblant OspA
- 39 patients recevant le vaccin vs 19 placebo
- Essai de Phase 3 VALOR en cours
  - Multicentrique
  - [redacted]anada, [redacted]inland, [redacted]erma[redacted]y, [redacted]etherlands, [redacted]olland, [redacted]weden, [redacted]nited [redacted]tates
  - 12554 patients inclus sur 18000 attendus
  - Fi[redacted]re 25



# Épidémiologie
# &
# Actualités

Bulletin

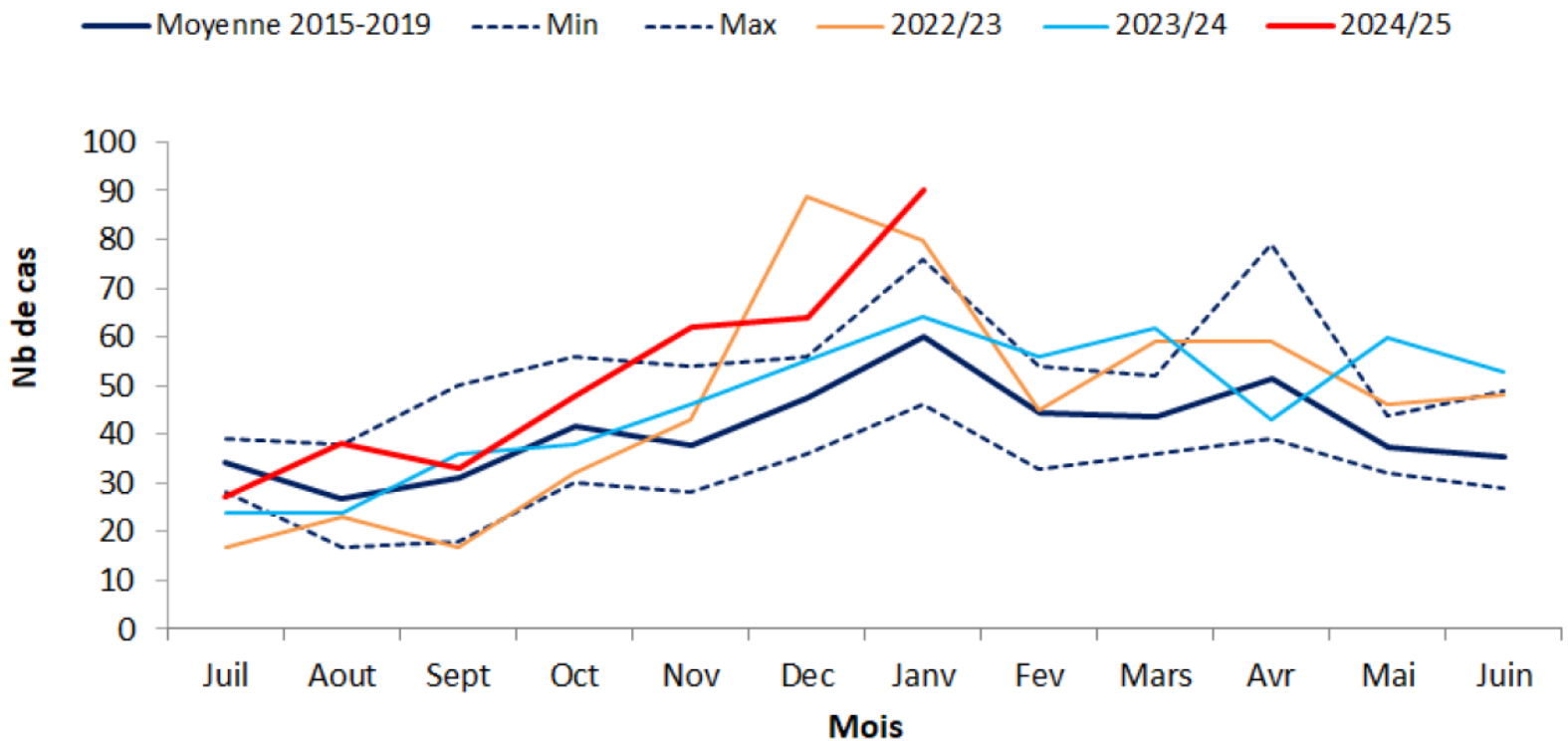
Santé publique France

Infections invasives à méningocoque

Date de publication : 19 février 2025

# Situation des infections invasives à méningocoque en France au 31 janvier 2025

**Figure 1. Nombre de cas d'infections invasives à méningocoque par mois et par saison (janvier 2025 : données non consolidées)**



# Points clés

- Recrudescence importante des IIM (90 cas en janvier 2025 vs 615 cas sur l'année 2024), équivalent au pic de décembre 2022
- Lien potentiel avec épidémie de grippe particulièrement importante de la saison 2024-2025
- Caractéristiques proches de la saison 2022-2023
- 13 décès en janvier 2025, essentiellement chez jeunes adultes
- Létalité des IIM W particulièrement élevée (19,8 % vs 12,5 % pour IIM B et 10,4 % pour IIM Y)

**Tableau 2. Nombre de cas d'infections invasives à méningocoque par sérogroupe aux mois de décembre et janvier, comparaison 2022/23 et 2024/25 (janvier 2025 : données non consolidées)**

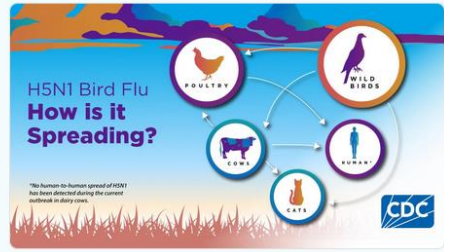
| | Saison 2022-2023 | | Saison 2024-2025 | |
|---|---|---|---|---|
| **Sérogroupe** | **Décembre 2022 n (%)** | **Janvier 2023 n (%)** | **Décembre 2024 n (%)** | **Janvier 2025 n (%)** |
| IIM B | 36 (40,9) | 35 (46,7) | 29 (49,1) | 33 (44,6) |
| IIM W | 24 (27,3) | 23 (30,7) | 15 (25,4) | 22 (29,7) |
| IIM Y | 28 (31,8) | 17 (22,7) | 15 (25,4) | 19 (25,7) |

Note : la part des différents sérogroupes était la même selon les données du CNR avec 38 IIM B, 26 IIM W et 23 IIM Y (la différence étant liée au délai de complétude des DO pour le sérogroupe)

# H5 Bird Flu: Current Situation

WHAT TO KNOW

- H5 bird flu is widespread in wild birds worldwide and is causing outbreaks in poultry and U.S. dairy cows with several recent human cases in U.S. dairy and poultry workers.
- While the current public health risk is low, CDC is watching the situation carefully and working with states to monitor people with animal exposures.
- CDC is using its flu surveillance systems to monitor for H5 bird flu activity in people.

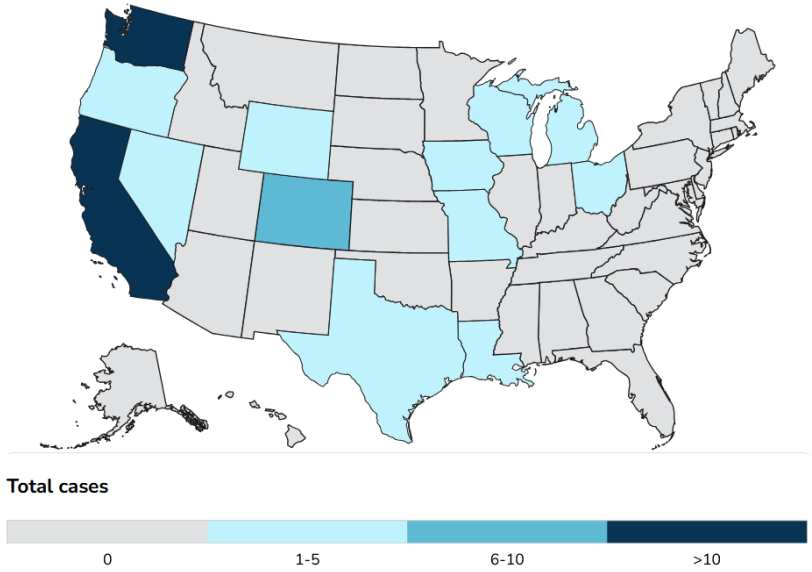



National Total Cases: 70

| Cases | Exposure Source |
|---|---|
| 41 | Dairy Herds (Cattle)* |
| 24 | Poultry Farms and Culling Operations* |
| 2 | Other Animal Exposure† |
| 3 | Exposure Source Unknown‡ |

NOTE: One additional case was previously detected in a poultry worker in Colorado in 2022. Louisiana reported the first H5 bird flu death in the U.S.

*Exposure Associated with Commercial Agriculture and Related Operations
†Exposure was related to other animals such as backyard flocks, wild birds, or other mammals
‡Exposure source was not able to be identified




Santé publique France

# Grippes aviaire et porcine : l'évolution de la situation internationale sous surveillance renforcée

Les virus influenza circulent massivement au niveau international avec une augmentation des cas de transmission à l'être humain. Bien que le risque soit faible en France, Santé publique France accroît sa vigilance et renforce la surveillance.

**Mis à jour le 10 février 2025**

Santé publique France

# Surveillance et investigation des cas de grippe humaine due à un virus influenza d'origine aviaire ou porcine

*Mise à jour du 10/02/2025*

## I. Définition de cas de grippe zoonotique

La définition d'un cas de grippe zoonotique repose sur **trois types de critères** (cf. Figure 1 *infra*) :

- **Un critère clinique** : signes cliniques d'infection respiratoire aiguë (fièvre ou sensation de fièvre d'apparition brutale et signes respiratoires) et/ou d'infection oculaire (notamment conjonctivite) quel que soit le niveau de gravité des symptômes[1] ;
- **Un critère épidémiologique :** exposition à risque (voir définition en section I.4 ci-dessous) dans les 10 jours précédant l'apparition des signes cliniques ;
- **Un critère virologique :** résultat de RT-PCR grippe positif pour un virus influenza de type A avec un Ct inférieur à 32 **ET** négatif pour les sous-types d'influenza saisonnier H1 et H3. Un test antigénique rapide n'est pas utilisable en cas de suspicion de grippe zoonotique.

### 4. Exposition à risque

| Contact direct avec un être vivant confirmé d'infection par un virus influenza aviaire ou porcin | Contact direct avec un animal suspecté d'infection par un virus influenza aviaire hautement pathogène ou porcin | Contact avec un environnement ou du matériel contaminé par un virus influenza aviaire ou porcin |
|---|---|---|
| **Animal confirmé d'infection par un virus IA/IP** par le Laboratoire National de Référence influenza aviaire/porcin ou tout autre laboratoire habilité[1] **: oiseau, porc, ou toute autre espèce animale domestique ou sauvage**<br><br>**Cas humain confirmé** par le CNR Virus des infections respiratoires<br>(cf. définition d'une personne-contact) | **Contexte d'élevage d'oiseaux (professionnel ou de loisir) avec mortalité soudaine et anormale**<br><br>**Contexte d'élevage de porcs (professionnel ou de loisir) avec des animaux présentant un syndrome grippal**<br><br>**Contexte de contact direct avec la faune sauvage : l'oiseau ou le mammifère sauvage manipulé était malade ou trouvé mort.** | **Fréquentation pendant au moins 15 minutes d'un lieu confiné où des animaux infectés par un virus influenza aviaire ou porcin ont séjourné**<br><br>**Contact direct avec du matériel ou une surface d'un foyer confirmé d'influenza aviaire ou porcin**<br>Exemple : manipulation d'outils ou de litière, nettoyage des déjections<br><br>**Contact direct avec un prélèvement ou tout autre matériel biologique contaminé par un virus influenza aviaire ou porcin**<br>Exemple : en laboratoire de recherche ou de diagnostic |

Santé publique France

# Surveillance et investigation des cas de grippe humaine due à un virus influenza d'origine aviaire ou porcine

*Mise à jour du 10/02/2025*

## Figure 1 : Classement d'un cas de grippe zoonotique

| Critère clinique : | Critère épidémiologique : | Critère virologique : |
|---|---|---|
| IRA (quel que soit le niveau de gravité) ou symptômes oculaires (conjonctivite) | exposition à risque | Grippe A+ (avec CT<32) **ET** H1/H3 – |

**Cas possible :** Critère clinique + Critère épidémiologique

*Qui réalise le classement ?*
*Le professionnel de santé prenant en charge le patient lors d'une consultation médicale, avec l'appui si besoin d'un infectiologue référent*

**Cas probable :** Critère clinique + Critère épidémiologique + Critère virologique

**OU**

Critère clinique + Critère virologique (Uniquement en cas de forme grave de grippe A)

**OU**

Critère épidémiologique + Critère virologique (Investigation dans le cadre de la surveillance active de la grippe aviaire SAGA)

*Qui réalise le classement ?*
*L'ARS conjointement avec Santé publique France, avec l'appui si besoin d'un infectiologue référent et du Samu/Centre 15*

**Cas confirmé :** Détection d'un virus influenza aviaire ou porcin dans un prélèvement respiratoire

*Qui réalise le classement ?*
*Le Centre National de Référence Virus des infections respiratoires*

# Epidémie – Chikungunya

- 1773 cas de Chikungunya depuis aout 2024 (dont 1631 depuis 2025)
- 13 hospitalisations

*Figure 2. Courbe des cas confirmés de chikungunya par semaine de début des signes, La Réunion, S33/2024 à S7/2025*

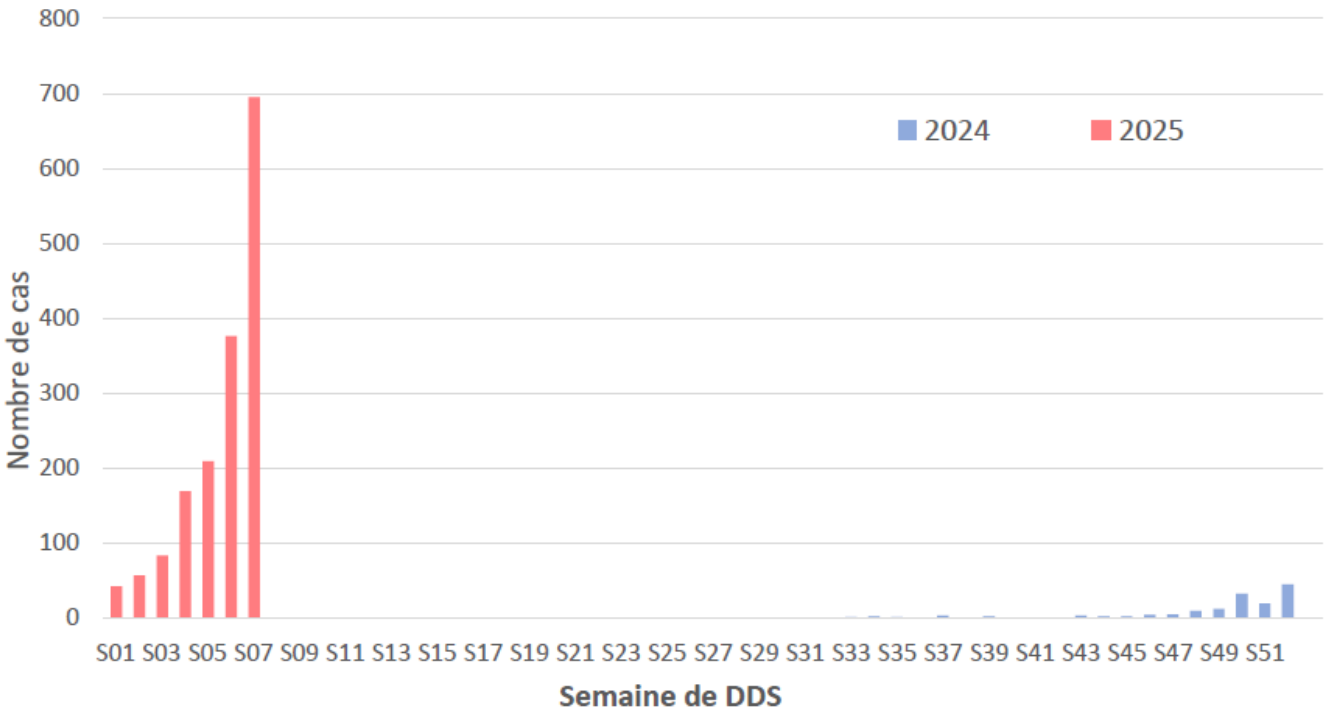
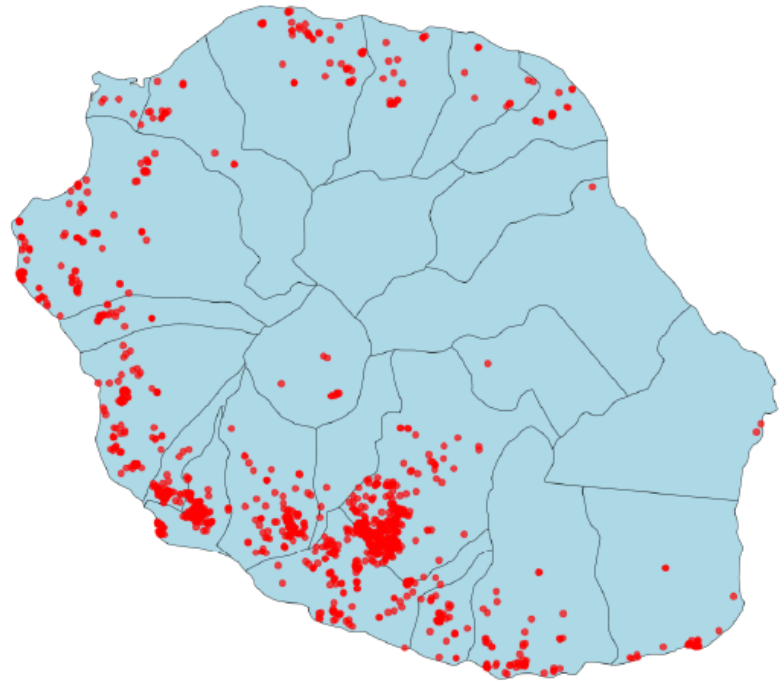



*Figure 1. Répartition cartographiée des cas de chikungunya entre la S33/2024 et la S07/2025*

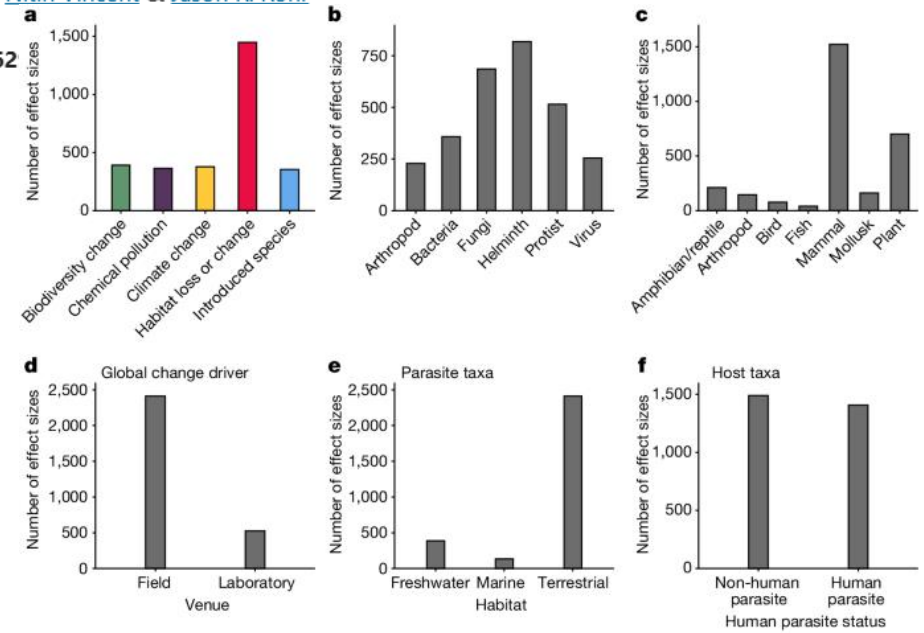


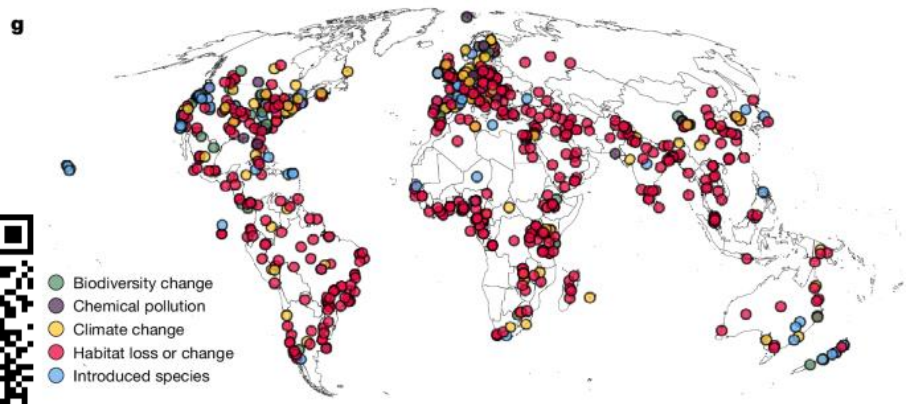
Article | Published: 08 May 2024

# A meta-analysis on global change drivers and the risk of infectious disease

Michael B. Mahon, Alexandra Sack, O. Alejandro Aleuy, Carly Barbera, Ethan Brown, Heather Buelow, David J. Civitello, Jeremy M. Cohen, Luz A. de Wit, Meghan Forstchen, Fletcher W. Halliday, Patrick Heffernan, Sarah A. Knutie, Alexis Korotasz, Joanna G. Larson, Samantha L. Rumschlag, Emily Selland, Alexander Shepack, Nitin Vincent & Jason R. Rohr

*Nature* 62

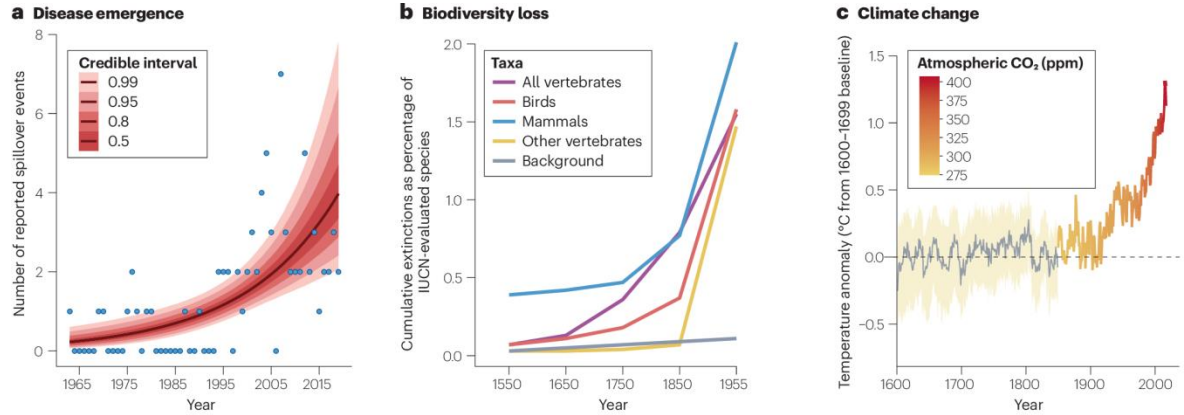


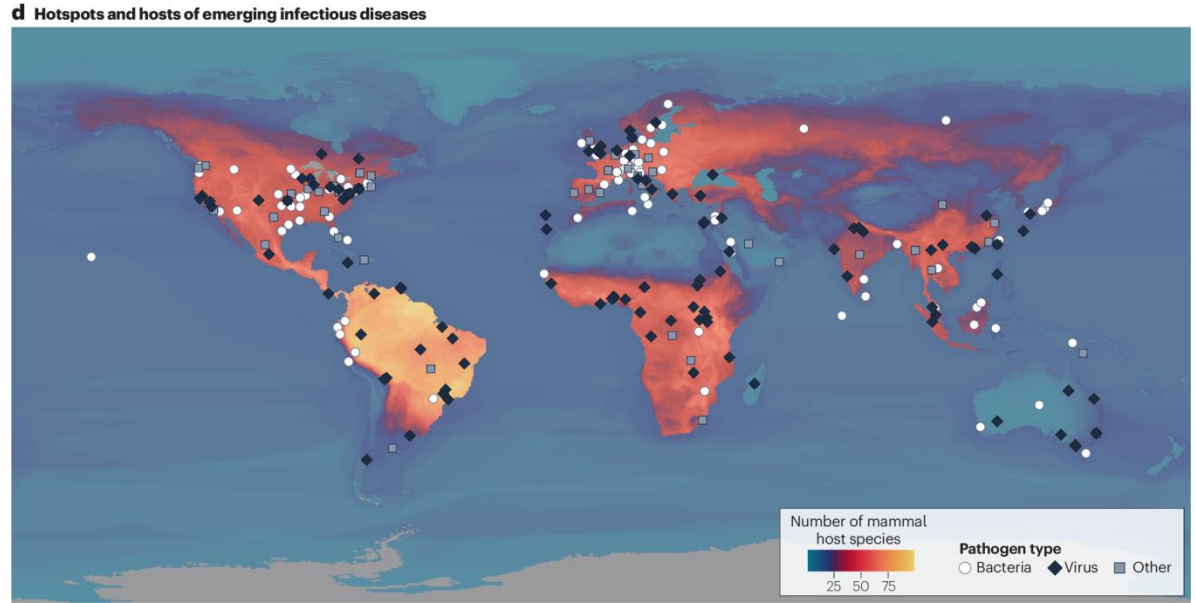




# Pathogens and planetary change

Colin J. Carlson, Cole B. Brookson, Daniel J. Becker, Caroline A. Cummings, Rory Gibb, Fletcher W. Halliday, Alexis M. Heckley, Zheng Y. X. Huang, Torre Lavelle, Hailey Robertson, Amanda Vicente-Santos, Ciara M. Weets & Timothée Poisot

*Nature Reviews Biodiversity* **1**, 32–49 (2025) | Cite this article




SCIENCES • RECHERCHE SCIENTIFIQUE

Le Monde

TRIBUNE

Collectif

# « Défendons les sciences face aux nouveaux obscurantismes »

En écho au mouvement américain de protestation contre la politique de Donald Trump, un collectif de personnalités françaises appelle citoyens et scientifiques, dans une tribune au « Monde », à rejoindre le mouvement « Stand up for Science », ainsi qu'à une journée de mobilisation nationale, le 7 mars.

Publié hier à 12h00, modifié à 09h00 | Lecture 2 min.

Contents lists available at ScienceDirect

Clinical Microbiology and Infection

journal homepage: www.clinicalmicrobiologyandinfection.com

ELSEVIER

CMI CLINICAL MICROBIOLOGY AND INFECTION

ESCMID

EDITORIAL NOTE · Articles in Press, March 04, 2025 · *Open Access*

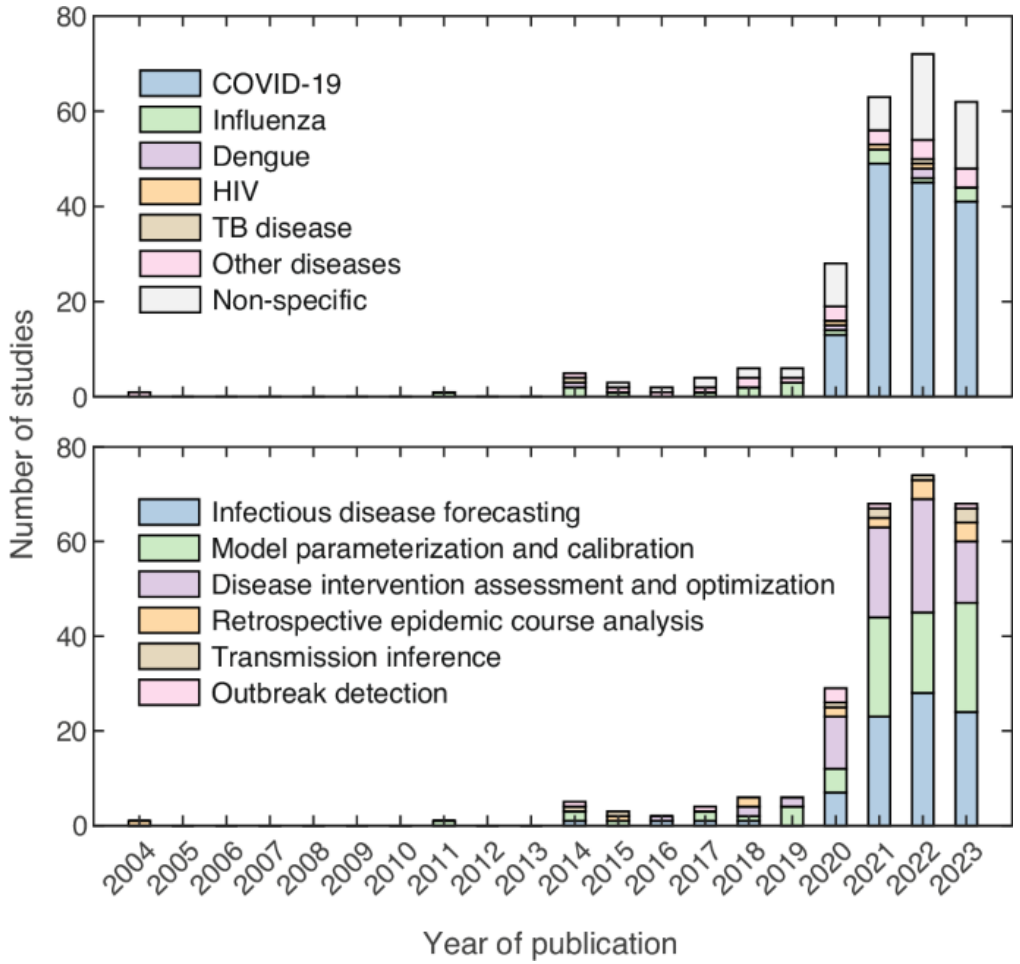
# From medical editors: a call to the global infectious diseases and clinical microbiology community

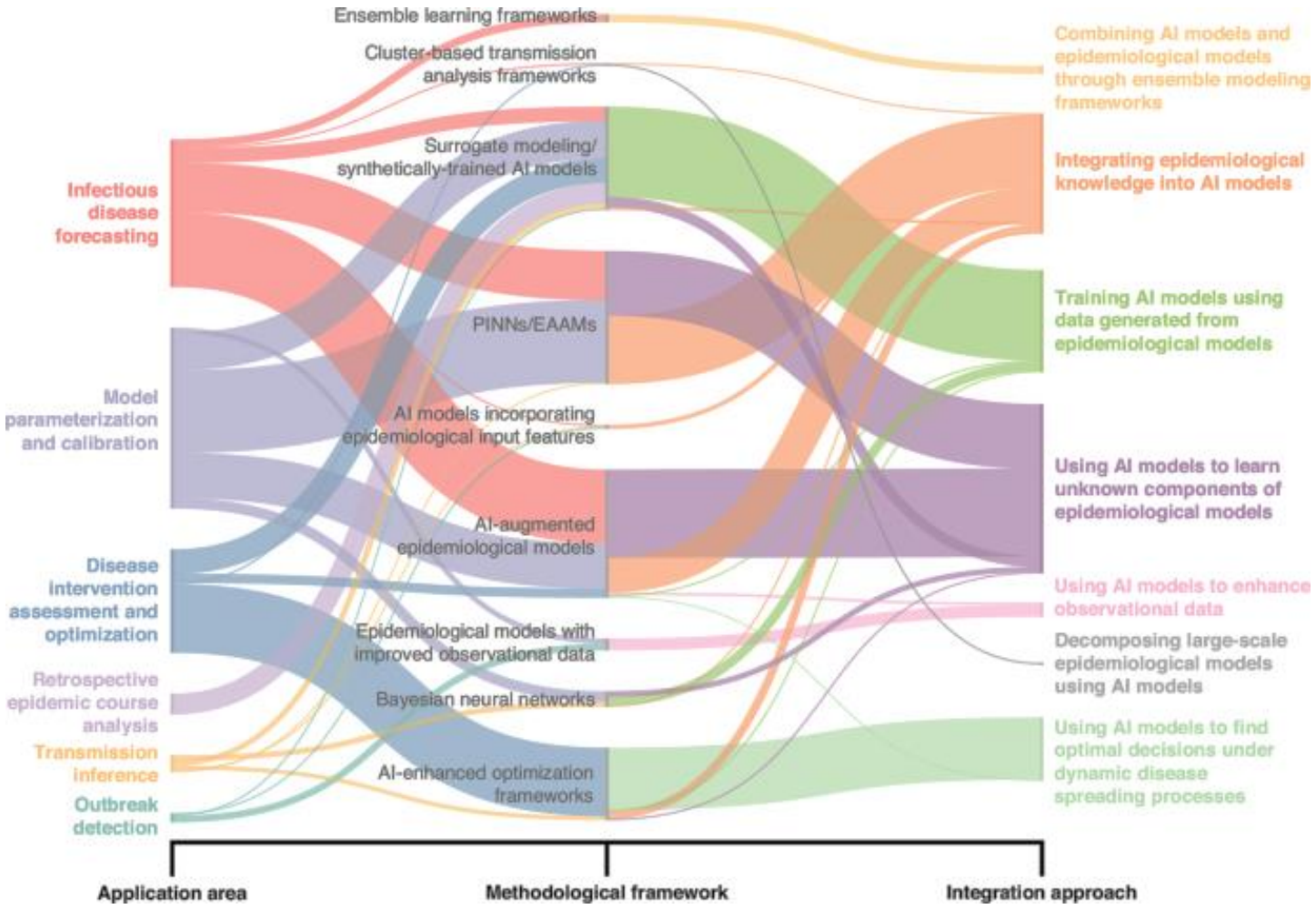
# Digital
# &
# Approches innovantes

nature communications

# Integrating artificial intelligence with mechanistic epidemiological modeling: a scoping review of opportunities and challenges

Yang Ye, Abhishek Pandey, Carolyn Bawden, Dewan Md. Sumsuzzman, Rimpi Rajput, Affan Shoukat, Burton H. Singer, Seyed M. Moghadas & Alison P. Galvani

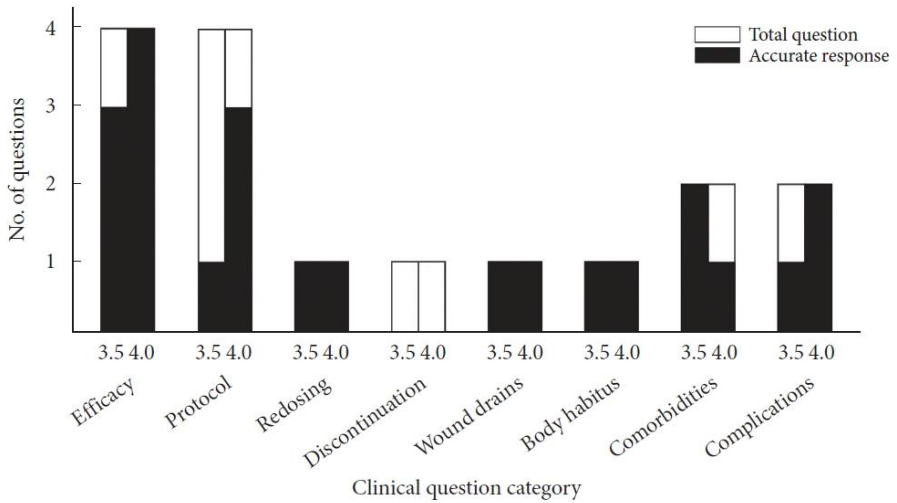


# Performance of a Large Language Model in the Generation of Clinical Guidelines for Antibiotic Prophylaxis in Spine Surgery

Neurospine
pISSN 2586-6583 eISSN 2586-6591

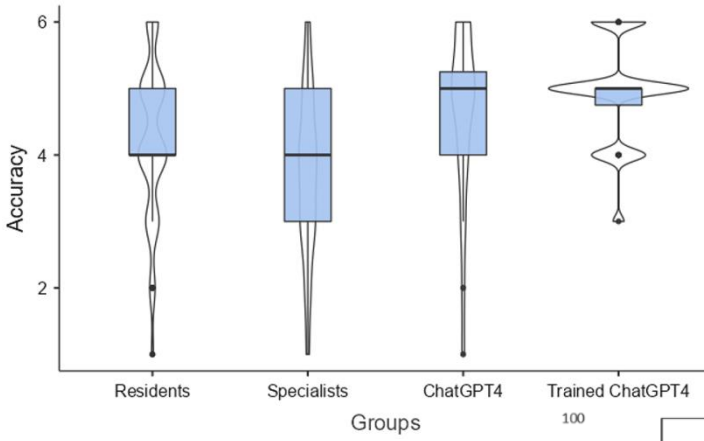
Bashar Zaidat, Nancy Shrestha, Ashley M. Rosenberg, Wasil Ahmed, Rami Rajjoub, Timothy Hoang, Mateo Restrepo Mejia, Akiro H. Duey, Justin E. Tang, Jun S. Kim, Samuel K. Cho

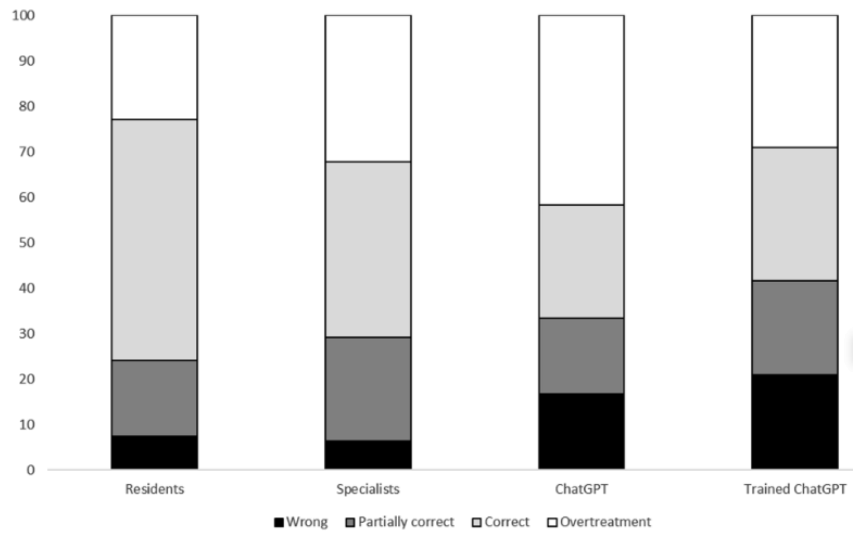



# Assessing ChatGPT's theoretical knowledge and prescriptive accuracy in bacterial infections: a comparative study with infectious diseases residents and specialists

Research | Open access | Published: 12 July 2024

Andrea De Vito, Nicholas Geremia, Andrea Marino, Davide Fiore Bavaro, Giorgia Caruana, Marianna Meschiari, Agnese Colpani, Maria Mazzitelli, Vincenzo Scaglione, Emmanuele Venanzi Rullo, Vito Fiore, Marco Fois, Edoardo Campanella, Eugenia Pistarà, Matteo Faltoni, Giuseppe Nunnari, Annamaria Cattelan, Cristina Mussini, Michele Bartoletti, Luigi Angelo Vaira & Giordano Madeddu

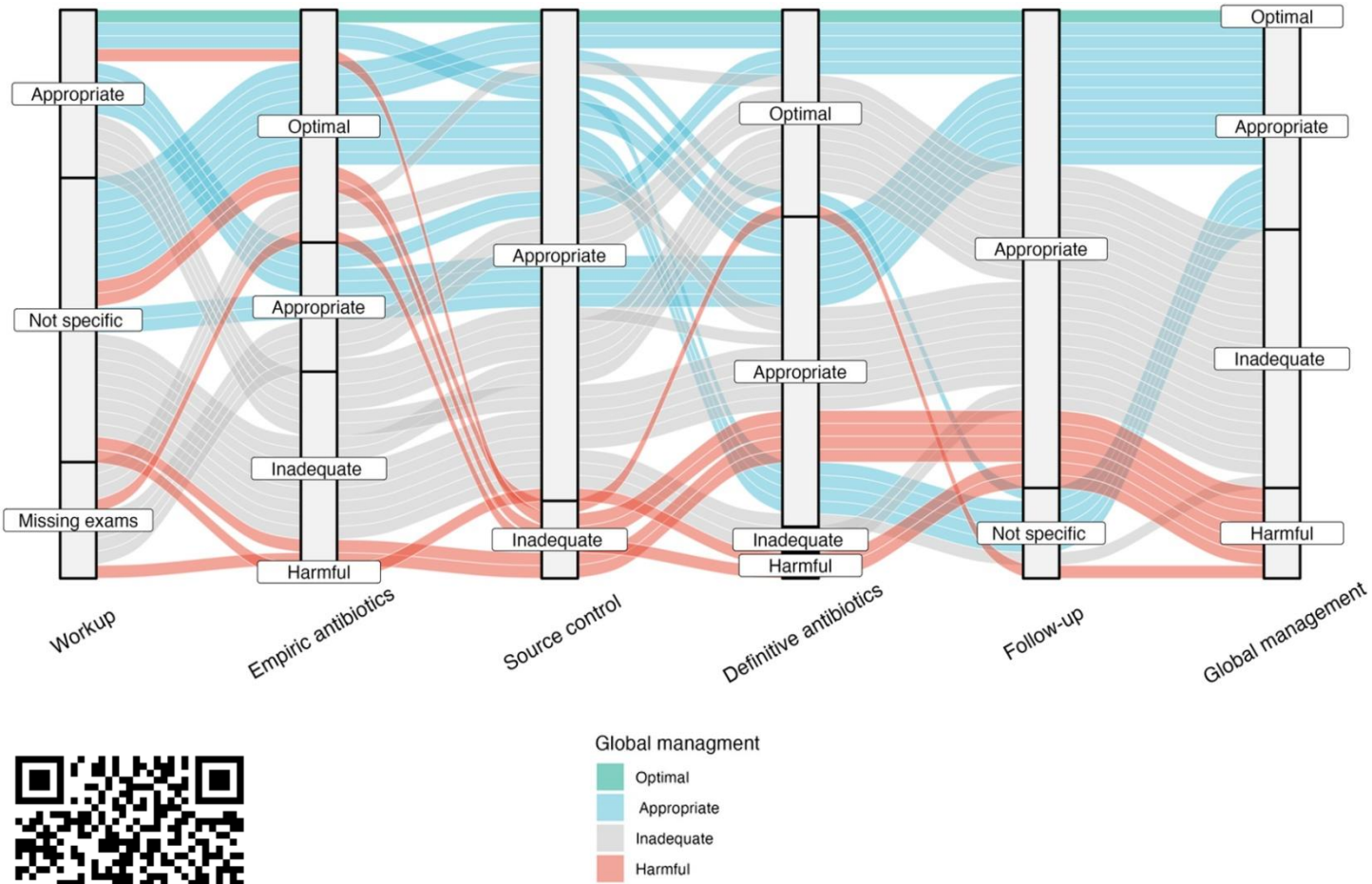


JOURNAL ARTICLE

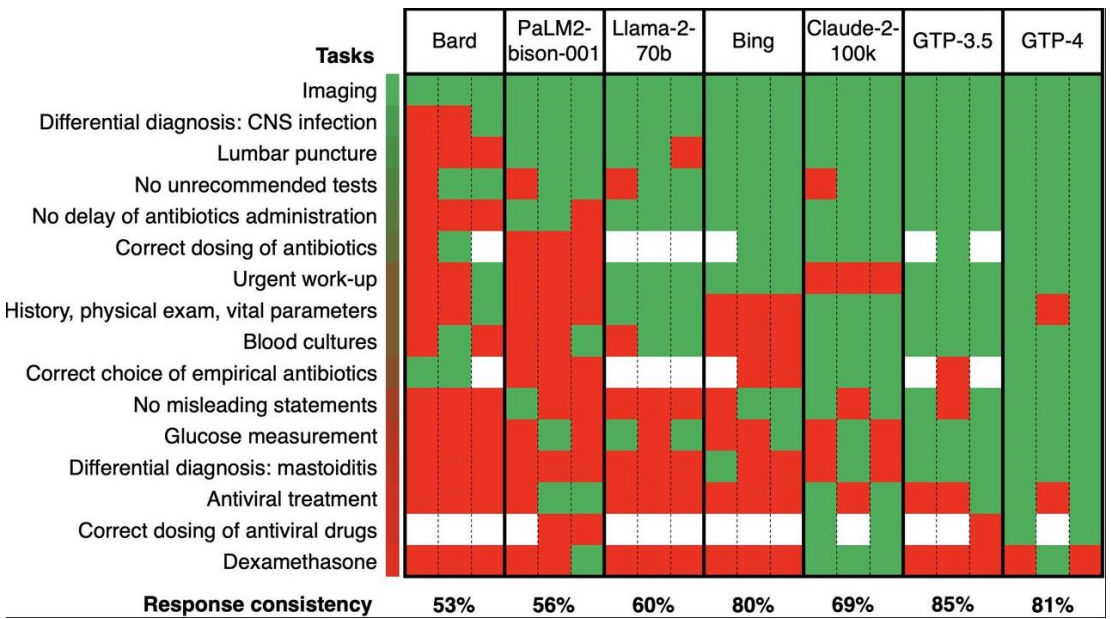
# Can Chatbot Artificial Intelligence Replace Infectious Diseases Physicians in the Management of Bloodstream Infections? A Prospective Cohort Study FREE

Alexis Maillard ✉, Giulia Micheli, Leila Lefevre, Cécile Guyonnet, Claire Poyart, Etienne Canouï, Martin Belan ✉, Caroline Charlier ✉ Author Notes




# Performance of large language models on advocating the management of meningitis: a comparative qualitative study

Author affiliations · Urs Fisch [1] ✉, Paulina Kliem [2], Pascale Grzonka [2], Raoul Sutter [1 2 3].

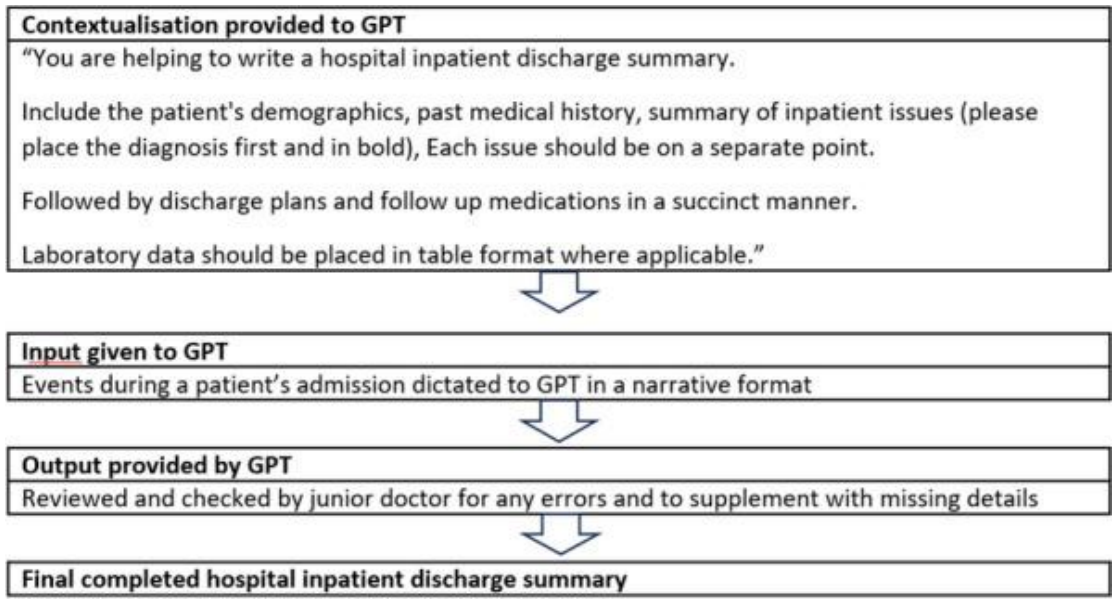


BMC Health Services Research

Research | Open access | Published: 10 February 2025

# Using ChatGPT for writing hospital inpatient discharge summaries – perspectives from an inpatient infectious diseases service

Matthew Chung Yi Koh, Jinghao Nicholas Ngiam ✉, Jolene Ee Ling Oon, Lionel Hon-Wai Lum, Nares Smitasin & Sophia Archuleta




Discharge Summary:

Patient: Mr ABC, a 40-year-old gentleman

Demographics: Male

Past Medical History:
- High blood pressure (amlodipine 10mg daily)
- Hyperlipidaemia (atorvastatin 40mg daily)

Reason for Admission: Dengue fever

Presenting Symptoms:
- Fevers for the last 3 days
- Prominent muscle aches and poor appetite
- Giddiness leading to near-fall episode

Findings on Admission:
- Lethargy
- High fevers of 39 degrees Celsius
- Postural blood pressure drop from 120/70 mmHg (lying down) to 90/50 mmHg (standing up)
- Abnormal lab findings: Total white cell count of 4, haemoglobin of 13, Plat count of 90
- Elevated liver enzymes: Albumin (38), AST (150), ALT (99), ALP (80)

Inpatient Course:
- Admitted for intravenous hydration
- Improved symptoms, appetite progressed from half to full shares
- Postural blood pressure stabilized: 125/70 (lying down) to 120/65 mmHg (standing)
- Platelet count initially 90, dropped to lowest of 25 on D3, recovered to 40 on discharge

Discharge Plans:
- Close monitoring for bleeding due to thrombocytopenia
- Amlodipine and atorvastatin to be held off on discharge due to elevated liver enzymes
- Outpatient follow-up with a general practitioner clinic in 1 week
- Repeat full blood count, liver function test, and blood pressure assessment
- Consider restarting amlodipine and atorvastatin if parameters improve

Follow-Up Medications: None prescribed upon discharge

Laboratory Data:

| Lab Results | Day of Admission |
|---|---|
| White Cell Count | 4 |
| Haemoglobin | 13 |
| Platelet Count | 90 |
| Albumin | 38 |
| AST | 150 |
| ALT | 99 |
| ALP | 80 |
| Bilirubin | 5 |
| Platelet Count (lowest) | 25 |
| Platelet Count (discharge) | 40 |

Note: This is a simulated exercise and not medical advice. Consult with a healthcare professional for accurate diagnosis and appropriate treatment options.

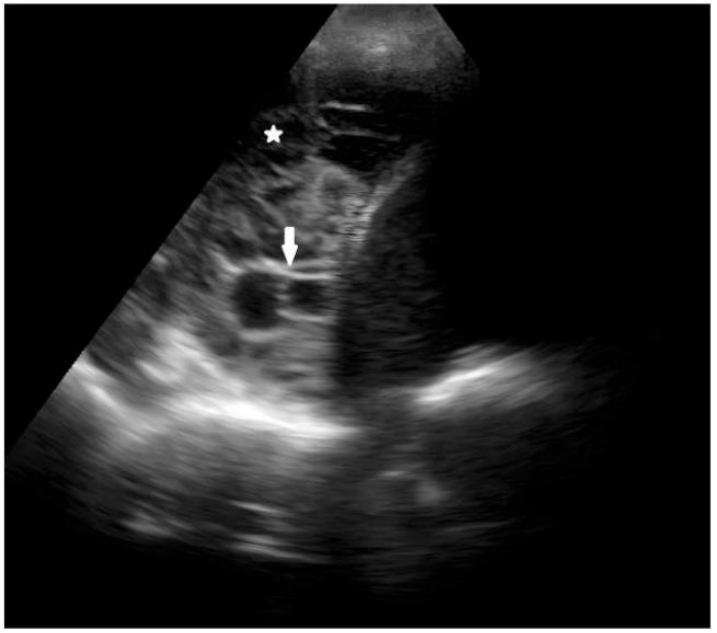
*Clinical Infectious Diseases*

REVIEW ARTICLE

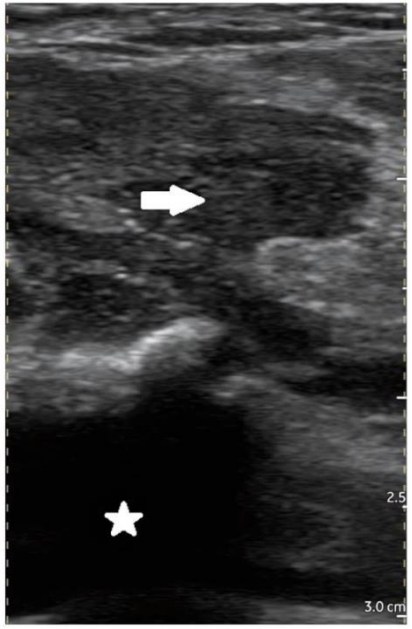
# Point-of-care Ultrasound in Infectious Diseases: Current Insights and Future Perspectives

**Alejandro Díez-Vidal,[1,2] Patricia Martínez-Martín,[1,2,3] Borja González-Muñoz,[2,4] and Yale Tung-Chen[2,4,5]**

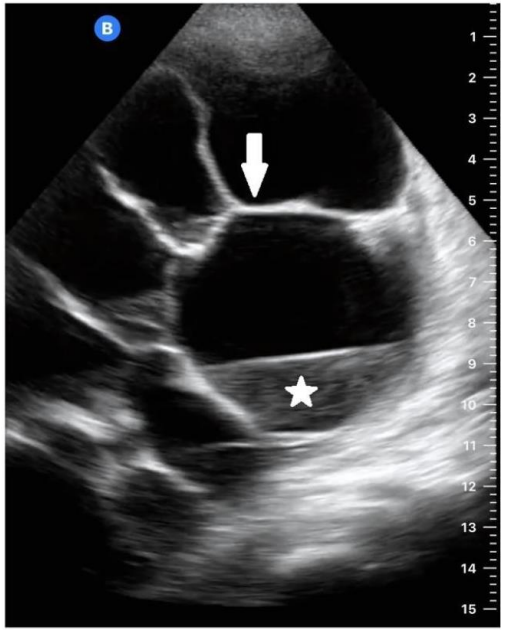
[1]Infectious Diseases Unit, Internal Medicine Department, La Paz University Hospital, Madrid, Spain; [2]IdiPAZ Hospital La Paz Institute for Health Research, La Paz University Hospital, Madrid, Spain; [3]CIBERINFEC, Carlos III Health Institute, Madrid, Spain; [4]Internal Medicine Department, La Paz University Hospital, Madrid, Spain; and [5]Department of Medicine, Alfonso X El Sabio University, Madrid, Spain



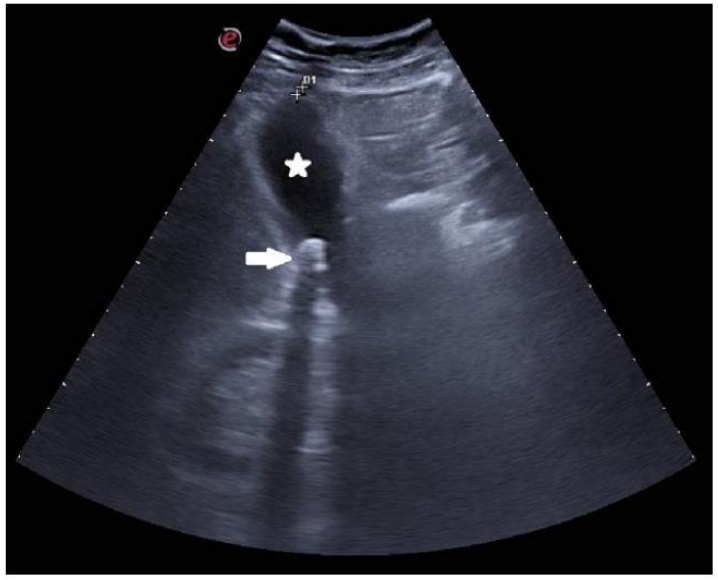
Pleurésie enkystée



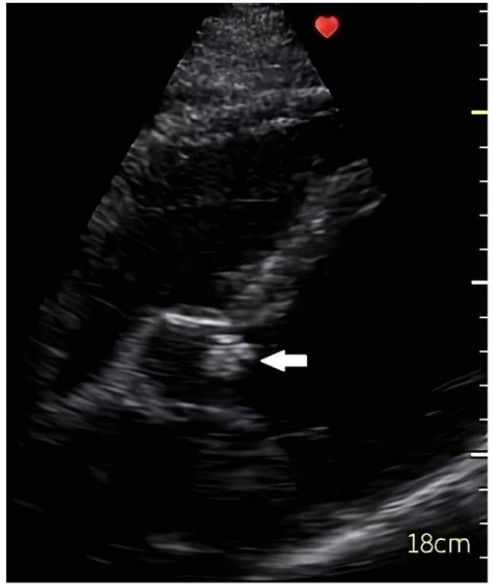

Arthrite septique



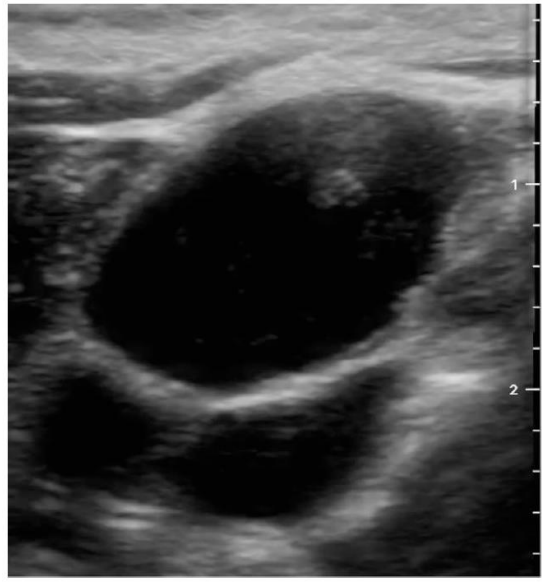

Pyélonéphrite abcédée



Cholécystite aiguë lithiasique




Endocardite aortique



Adénite tuberculeuse

**Table 3. Differential Diagnosis of the Most Common Causes of Intracardiac Masses**

| | Vegetation | Thrombus | Tumor |
|---|---|---|---|
| Symptoms and previous history | Fever, bacteremia, septic embolism | History of atrial fibrillation, ischemic heart disease, hypercoagulability.<br>Systemic embolisms. | Constitutional symptoms. |
| Most frequent location | Valve on the low-pressure side | Left atrium: mitral stenosis, atrial fibrillation.<br>Left ventricle: apical aneurysm. | Left atrium: myxoma.<br>Valves: papillary fibroelastoma.<br>Myocardium: primary tumor.<br>Pericardium: metastasis. |
| Morphology | Initial: fine, mobile filaments.<br>Evolved: irregular, mobile mass.<br>Late: hyperechoic or mixed mass. | Variable shape, ovoid or irregular, more defined and less mobile than vegetations. | Variable, often irregular, mobile, with a defined implantation base. |
| Other findings | Abscess, prosthetic valve dehiscence, valvular regurgitation | Predisposing conditions: atrial fibrillation, left atrial dilation, dyskinesia. | Alteration of intracardiac flow, valvular obstruction. |

**Table 5. Ultrasound Findings in Tropical Diseases**

| Tropical Disease | Ultrasound Findings |
|---|---|
| Schistosomiasis | Intestinal: Liver fibrosis, periportal thickening (fibrosis), splenomegaly, ascites.<br>Urogenital: Irregular bladder wall thickening, bladder masses. |
| Hydatid disease (Echinococcosis) | Cystic lesions in liver/other organs. Appearance depends on cyst stage (WHO-IWGE):<br>CE1: Double wall, inner hyperechoic, and outer hypoechoic.<br>CE2: Presence of septa and daughter vesicles.<br>CE3a: Detached membrane ("lily sign"), hyperechoic heterogeneous contents.<br>CE3b: Heterogeneous contents with daughter vesicles.<br>CE4: Hypoechoic inner layer in a hyperechoic matrix ("ball of wool" sign).<br>CE5: Calcified wall with acoustic shadow. |
| Hemorrhagic fevers | Effusions, gallbladder wall thickening, utility for hemodynamic assessment. |
| Lymphatic filariasis | Lymphatic dilation, hydrocele, thickened scrotal skin. |
| Amebic liver abscess | Round or oval hypoechoic liver lesions, without internal echoes. |
| Visceral leishmaniasis | Hepatomegaly, splenomegaly, lymph node enlargement. |
| Chagas disease | Cardiomegaly, apical aneurysm, intestinal wall thickening. |
| Leptospirosis | Hepatomegaly, splenomegaly, renal abnormalities. |

# Merci pour votre attention !

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