# Best of en infectiologie
# BMR – Nouveaux antibiotiques

**David Boutoille**

**Maladies Infectieuses et Tropicales – CHU Nantes**

**Réunion partenaires SPILF – Lundi 23 mars 2026**

Nantes Université

CHU NANTES

# BHR

# Characterization of Carbapenemase-producing Enterobacterales isolated from patients returning from Sub-Saharan Africa, France, 2015-2022

*J Antimicrob Chemother* 2025; **80**: 2285–2294
https://doi.org/10.1093/jac/dkaf206 Advance Access publication 7 July 2025

Journal of Antimicrobial Chemotherapy 50 years

**Characterization of Carbapenemase-producing Enterobacterales isolated from patients returning from Sub-Saharan Africa, France, 2015–2022**

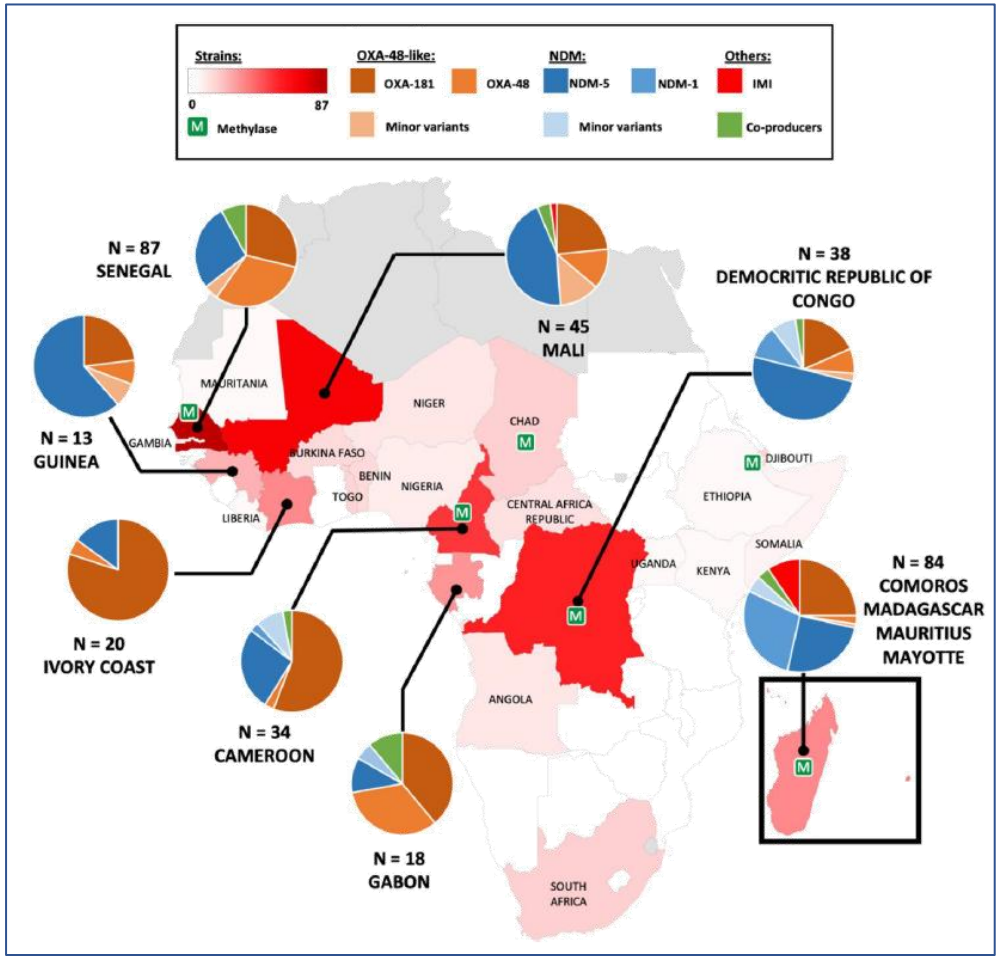
Corentin Poignon[1], Laurent Dortet[1,2,3], Aurélien Birer[4], Inès Rezzoug[1,2,3], Cécile Emeraud[1,2,3], Delphine Girlich[2], Thierry Naas[1,2,3], Rémy A. Bonnin[1,2,3] and Agnès B. Jousset[1,2,3]*

[1]*Department of Bacteriology-Hygiene, Bicêtre Hospital, Assistance Publique—Hôpitaux de Paris, Le Kremlin-Bicêtre, France;* [2]*Inserm, CEA, Center for Immunology of Viral, Auto-Immune, Hematological and Bacterial Diseases » (IMVA-HB/IDMIT/UMRS1184), Université Paris-Saclay, Fontenay-aux-Roses & Le Kremlin-Bicêtre, France;* [3]*French Associated National Reference Center for Antibiotic Resistance, Bicêtre Hospital, Assistance Publique—Hôpitaux de Paris, Le Kremlin-Bicêtre, France;* [4]*French Associated National Reference Center for Antibiotic Resistance, Bacteriology, CHU Gabriel-Montpied, Clermont-Ferrand, France*

- Caractérisation par le CNR des carbapénèmases isolées de patients revenant d'Afrique sub-saharienne
- 408 isolats, 29 pays
- 55,1 % d'OXA-48 (essentiellement de l'OXA-181)
- 46,3 % NDM (essentiellement de la NDM-5)
- NDM-5 est devenue la carbapénémase isolée de manière majoritaire en 2022 : 49 % des isolats

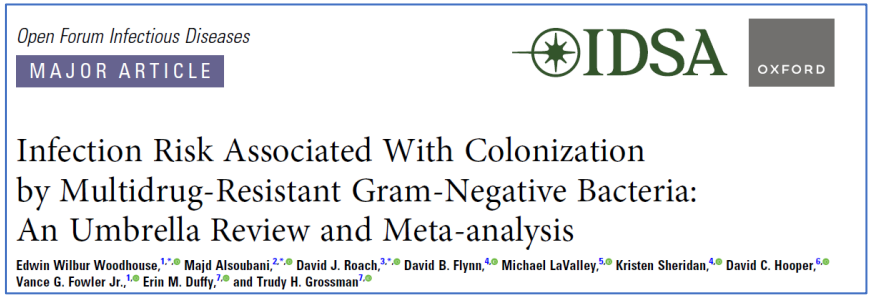
Activité des antibiotiques sur les MBL :
- Cefiderocol : 73 %
- Amikacine : 86,7 %
- Colistine : 98,4 %

## Geographical distribution of CPE collected from SSA returnees




*Poignon C et al, J Antimicrob Chemother 2025;80:2285-2294*

# Infection Risk Associated With Colonization by Multidrug-Resistant Gram-Negative Bacteria: An Umbrella Review and Meta-analysis



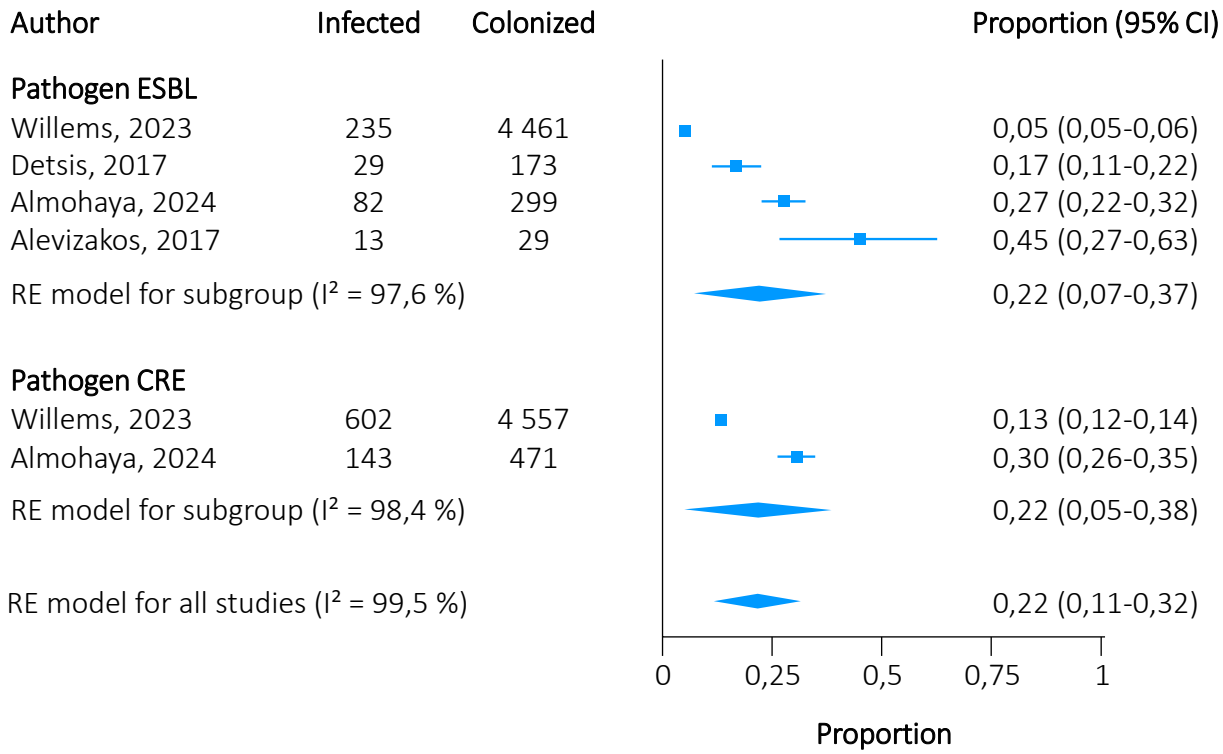

Revue parapluie (évaluation comparative et critique des revues systématiques et méta-analyses existantes)

847 articles → 17 retenus

## Risque = 22 %

**Facteurs de risque :**

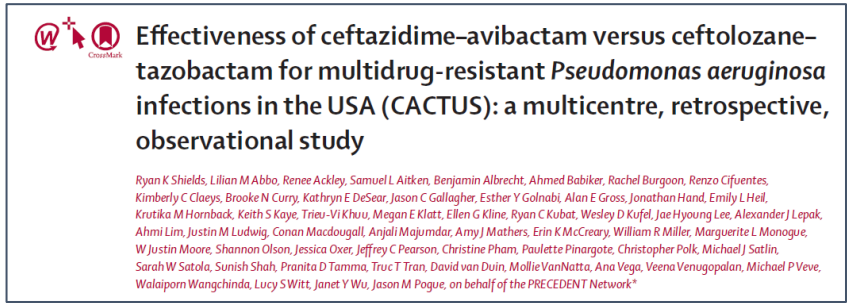
- Utilisation préalable de pénicillines, céphalosporines, carbapénèmes
- Hospitalisation en réanimation
- Colonisation à *K. pneumoniae*




*Woodhouse EW et al, OFID 2025 Jul 2;12(7):ofaf365.*

# Nouveaux antibiotiques

# Effectiveness of ceftazidime-avibactam versus ceftolozane-tazobactam for multidrug-resistant *Pseudomonas aeruginosa* infections in the USA (CACTUS): a multicentre, retrospective, observational study


Effectiveness of ceftazidime–avibactam versus ceftolozane–tazobactam for multidrug-resistant *Pseudomonas aeruginosa* infections in the USA (CACTUS): a multicentre, retrospective, observational study

Ryan K Shields, Lilian M Abbo, Renee Ackley, Samuel L Aitken, Benjamin Albrecht, Ahmed Babiker, Rachel Burgoon, Renzo Cifuentes, Kimberly C Claeys, Brooke N Curry, Kathryn E DeSear, Jason C Gallagher, Esther Y Golnabi, Alan E Gross, Jonathan Hand, Emily L Heil, Krutika M Hornback, Keith S Kaye, Trieu-Vi Khuu, Megan E Klatt, Ellen G Kline, Ryan C Kubat, Wesley D Kufel, Jae Hyoung Lee, Alexander J Lepak, Ahmi Lim, Justin M Ludwig, Conan Macdougall, Anjali Majumdar, Amy J Mathers, Erin K McCreary, William R Miller, Marguerite L Monogue, W Justin Moore, Shannon Olson, Jessica Oxer, Jeffrey C Pearson, Christine Pham, Paulette Pinargote, Christopher Polk, Michael J Satlin, Sarah W Satola, Sunish Shah, Pranita D Tamma, Truc T Tran, David van Duin, Mollie VanNatta, Ana Vega, Veena Venugopalan, Michael P Veve, Walaiporn Wangchinda, Lucy S Witt, Janet Y Wu, Jason M Pogue, on behalf of the PRECEDENT Network*

- Etude multicentrique rétrospective. USA.
- Pneumonies (83 %) et bactériémies (17 %) à *P. aeruginosa* MDR
- Comparasion Ceftolozane/Tazobactam vs Ceftazidime/Avibactam
- 2016-2023
- Critère principal : Succès clinique J30
- Critères secondaires :
  - Mortalité toutes causes J30
  - Développement de résistances

## Baseline and treatment characteristics

| | Ceftolozane-tazobactam (n = 210) | Ceftazidime-avibactam (n = 210) | *P-value* |
|---|---|---|---|
| **Severity of illness at time of study drug initiation** | | | |
| Residence in intensive care unit | 171 (81%) | 165 (79%) | 0,54 |
| Mechanical ventilation | 150 (71%) | 146 (70%) | 0,75 |
| Presence of severe sepsis or septic shock | 123 (59%) | 123 (59%) | 1,00 |
| Receipt of vasopressors | 83 (40%) | 85 (40%) | 0,92 |
| Receipt of renal replacement therapy | 64 (30%) | 62 (30%) | 0,92 |
| Continuous renal replacement | 32 (15%) | 31 (15%) | - |
| Intermittent hemodialysis | 32 (15%) | 31 (15%) | - |
| SOFA score | 7 (4-10) | 7 (4-10) | 0,98 |
| Pitt Bacteremia Score | 4 (2-8) | 4 (2-7) | 0,82 |
| $SpO_2/FiO_2$ ratio | 235 (164-267) | 238 (167-263) | 0,95 |
| **Treatment characteristics** | | | |
| Baseline isolate not tested for study drug susceptibility | 37 (18%) | 33 (16%) | 0,69 |
| Time to study drug initiation, h | 71,8 (45,1-95,5) | 70,9 (30,2-95,7) | 0,46 |
| In-vitro active agent received before study drug | 43 (20%) | 34 (16%) | 0,31 |
| Time to in-vitro active agent initiation, h | 65,2 (22.9-89,7) | 65,3 (20,9-92,8) | 0,90 |
| Receipt of prolonged Infusion | 65 (31%) | 44 (21%) | 0,026 |
| Suboptimal dosing regimen | 42 (20%) | 14 (7%) | <0,0001 |
| Duration of study drug treatment, days | 9,1 (6,3-13,3) | 8,1 (6,1-12,6) | 0,23 |
| Receipt of combination therapy | 59 (28%) | 56 (27%) | 0,83 |
| Intravenous antibiotics | 20 (10%) | 23 (11%) | - |
| Inhaled antibiotics | 35 (17%) | 28 (13%) | - |
| Both intravenous and inhaled | 4 (2%) | 5 (2%) | - |
| Concomitant Infection | 83 (40%) | 95 (45%) | 0,28 |
| Treated appropriately | 76 (92%) | 88 (93%) | - |

*Shields RK et al, Lancet Infect Dis 2025 May;25(5):574-584*

# Effectiveness of ceftazidime-avibactam versus ceftolozane-tazobactam for multidrug-resistant *Pseudomonas aeruginosa* infections in the USA (CACTUS): a multicentre, retrospective, observational study

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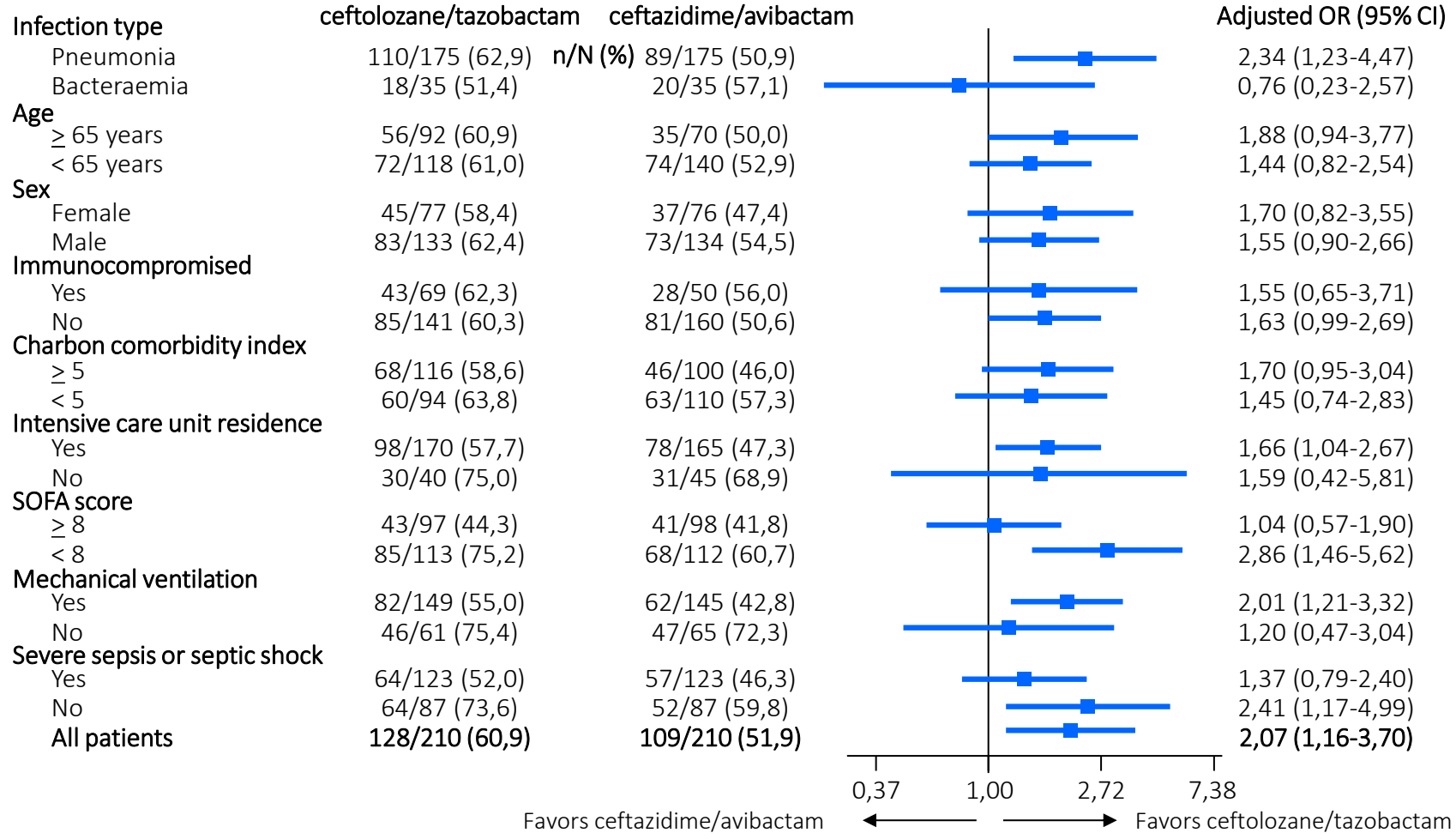
- **Succès clinique :**
  - 61 % Cefto/Tazo vs 52 % CAZAVI : aOR 2,07 (IC95% 1,16-3,70)
- **Pneumonies :**
  - 63 % Cefto/Tazo vs 51 % CAZAVI : aOR 2,34 (IC 95% 1,22-4,47)
- **Bactériémies** :
  - 51 % Cefto/Tazo vs 57 % CAZAVI : aOR 0,76 (IC95% 0,23-2,57)
- **Mortalité J30** : pas de différence
- **Emergence de résistances :**
  - 22 % Cefto/Tazo vs 23 % CAZAVI

Forest plot for the primary outcome of clinical success across key subgroups




*Shields RK et al, Lancet Infect Dis 2025 May;25(5):574-584*

**Cefiderocol versus standard therapy for hospital-acquired and health-care-associated Gram-negative bacterial bloodstream infection (the GAME CHANGER trial): an open-label, parallel-group, randomised trial**

*David L Paterson, Helmi Sulaiman, Po-Yu Liu, Mark D Chatfield, Mesut Yilmaz, Zeti Norfidiyati Salmuna, Mohd Zulfakar Mazlan, Siriluck Anunnatsiri, Rujipas Sirijatuphat, Darunee Chotiprasitsakul, David C Lye, Jyoti Somani, Shirin Kalimuddin, Abdullah T Aslan, Visanu Thamlikitkul, Yi-Tzu Lee, Ya-Sung Yang, Yi-Tsung Lin, Wan Nurliyana Wan Ramli, Chien-Hao Tseng, Sophia Archuleta, Yvonne Fu Zi Chan, Brian M Forde, Hugh Wright, Adam G Stewart, Kay A Ramsay, Weiping Ling, Vicki Rossi, Tiffany M Harris-Brown, Patrick N A Harris, on behalf of the GAME CHANGER Trial Investigators**

Lancet Infect Dis 2026; 26: 148–59

- Essai clinique randomisé, ouvert, en groupes parallèles
- Patients présentant une bactériémie à bacilles Gram négatif associée aux soins ou acquise à l'hôpital
- Critère de jugement principal : mortalité toutes causes à J14 après la randomisation

| Caractéristique | Cefiderocol (n = 250) | Traitement standard (n = 254) |
|---|---|---|
| Âge (années), moyenne (ET) | 62 (15) | 61 (16) |
| Sexe féminin, n (%) | 43 % | 40 % |
| Score de comorbidité de Charlson, médiane (IQR) | 5 (3–7) | 5 (3–7) |
| Immunodépression (%) | 61 % | 58 % |
| Neutropénie (%) | 19 % | 17 % |
| Mode d'acquisition de la bactériémie | | |
| Nosocomiale | 62 % | 60 % |
| Associée aux soins | 38 % | 40 % |
| Chirurgie dans les 14 jours suivant l'hémoculture index (%) | 9 % | 16 % |

*Paterson DL. et al. Lancet ID 2025*

# Cefiderocol versus standard therapy for hospital-acquired and health-care-associated Gram-negative bacterial bloodstream infection (the GAME CHANGER trial): an open-label, parallel-group, randomised trial

## Population

| Caractéristiques | Cefiderocol (n = 250) | Traitement standard (n = 254) |
|---|---|---|
| Admission en réanimation au moment de la randomisation (%) | 17 % | 20 % |
| Ventilation mécanique à la randomisation (%) | 15 % | 20 % |
| Support inotrope à la randomisation (%) | 15 % | 17 % |
| Score SOFA initial, médiane (IQR) | 4 (2–6) | 4 (3–7) |
| Source présumée de la bactériémie (%) | | |
| Infection urinaire | 21 % | 18 % |
| Infection intra-abdominale | 16 % | 19 % |
| Infection liée au cathéter | 16 % | 21 % |
| Pneumonie | 13 % | 12 % |
| Infection cutanée et des tissus mous | 5 % | 4 % |
| Autre | 10 % | 6 % |
| Inconnue | 18 % | 20 % |
| Bactériémie polymicrobienne (%) | 10 % | 11 % |

*Paterson DL. et al. Lancet ID 2025*

# Cefiderocol versus standard therapy for hospital-acquired and health-care-associated Gram-negative bacterial bloodstream infection (the GAME CHANGER trial): an open-label, parallel-group, randomised trial

## Microbiologie

| Micro-organisme résistant | Cefiderocol (n = 250) | Traitement standard (n = 254) |
|---|---|---|
| Entérobactéries résistantes aux céphalosporines de 3e génération | 26 % | 28 % |
| **Entérobactéries résistantes aux carbapénèmes** | **13 %** | **13 %** |
| Entérobactéries résistantes au cefiderocol | 5 % | 4 % |
| Entérobactéries productrices de KPC | < 1 % | 1 % |
| Entérobactéries productrices de type OXA-48 | 4 % | 6 % |
| Entérobactéries productrices de MBL | 6 % | 4 % |
| ***Acinetobacter* spp résistants aux carbapénèmes** | **4 %** | **6 %** |
| *Acinetobacter* spp résistants au cefiderocol | 1 % | 0 |
| *Pseudomonas* spp résistants aux carbapénèmes | 3 % | 3 % |
| *Pseudomonas* spp résistants au cefiderocol | 1 % | 0 |
| **Bacilles à Gram négatif résistants aux carbapénèmes** | **26 %** | **25 %** |

*Paterson DL. et al. Lancet ID 2025*

# Cefiderocol versus standard therapy for hospital-acquired and health-care-associated Gram-negative bacterial bloodstream infection (the GAME CHANGER trial): an open-label, parallel-group, randomised trial

## Mortalité selon le traitement

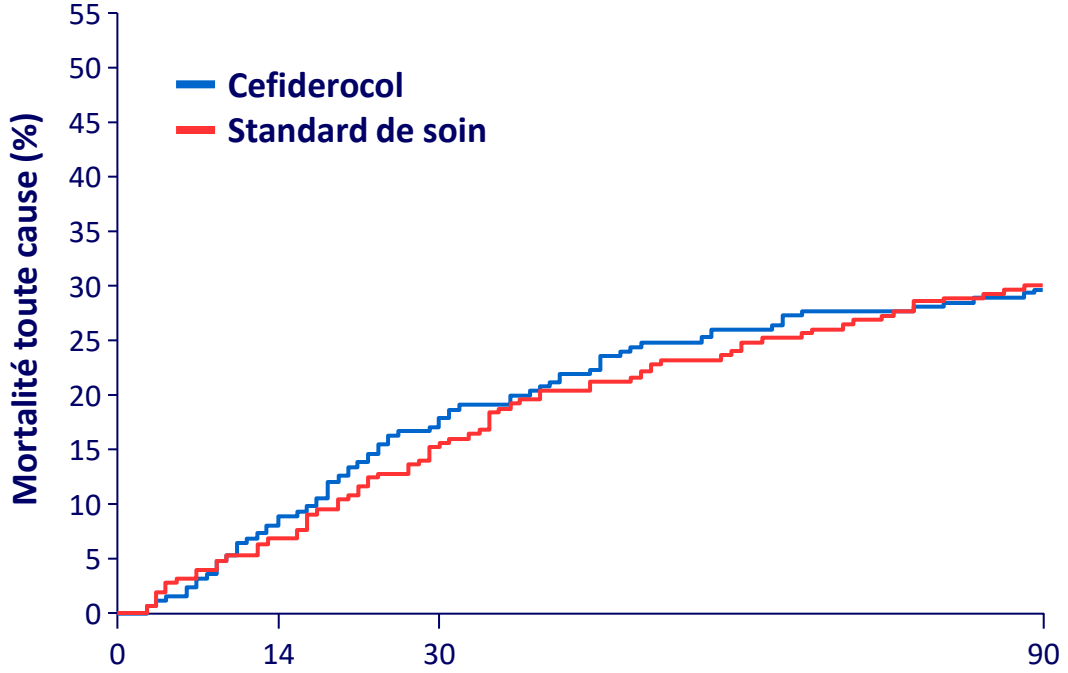
| Population / Temps | Cefiderocol (n = 250) | Traitement standard (n = 254) | Différence absolue de risque %, (IC 95 %) | Risque relatif (IC 95 %) |
|---|---|---|---|---|
| **Population totale – J14** | 8 % | 7 % | 1 (−3 à 6) | 1,20 (0,64–2,23) |
| **Population totale – J30** | 17 % | 15 % | 2 (−5 à 8) | 1,12 (0,75–1,68) |
| **Population totale – J90** | 29 % | 30 % | 0 (−8 à 8) | 0,99 (0,75–1,30) |
| **Sous-groupe carbapénème-R** | | | | |
| J14 | 14 % | 10 % | 5 (−7 à 16) | 1,48 (0,56–3,91) |
| J30 | 33 % | 25 % | 7 (−8 à 23) | 1,29 (0,75–2,24) |
| J90 | 48 % | 48 % | 1 (−17 à 18) | 1,02 (0,71–1,46) |
| **Infection urinaire** | 6 % | 4 % | 1 (−7 à 10) | 1,33 (0,23–7,60) |
| **Infection à Acinetobacter** | 11 % | 20 % | −9 (−30 à 12) | 0,56 (0,12–2,55) |
| **Score de Charlson ≥ 4** | 9 % | 9 % | 0 (−6 à 6) | 1,01 (0,52–1,50) |

*Paterson DL. et al. Lancet ID 2025*

# Cefiderocol versus standard therapy for hospital-acquired and health-care-associated Gram-negative bacterial bloodstream infection (the GAME CHANGER trial): an open-label, parallel-group, randomised trial

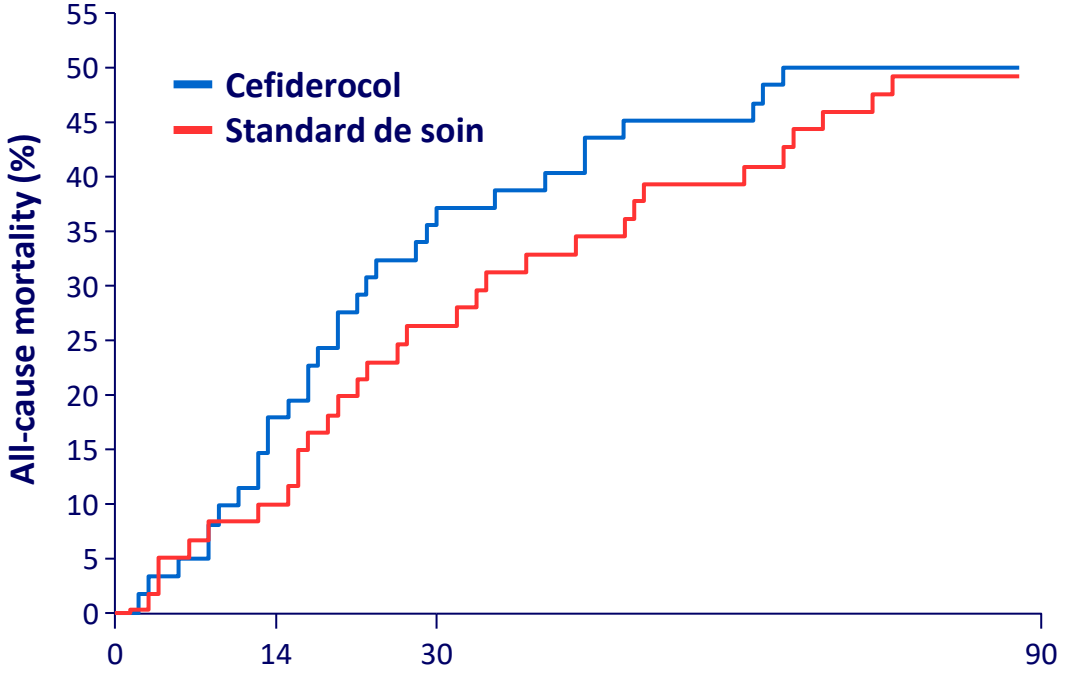
## Evolution

### Incidence cumulative de mortalité dans la population principale




| Nombre à risque | | | | |
|---|---|---|---|---|
| Cefiderocol | 250 | 230 | 208 | 177 |
| Standard de soin | 254 | 237 | 216 | 179 |

### Incidence cumulative de mortalité dans la population carbapenem-resistant




| | | | | |
|---|---|---|---|---|
| Cefiderocol | 64 | 55 | 43 | 33 |
| Standard de soin | 63 | 57 | 47 | 33 |

*Paterson DL. et al. Lancet ID 2025*

**Aztreonam–avibactam versus meropenem for the treatment of serious infections caused by Gram-negative bacteria (REVISIT): a descriptive, multinational, open-label, phase 3, randomised trial**

*Yehuda Carmeli*, José Miguel Cisneros*, Mical Paul, George L Daikos, Minggui Wang, Julian Torre-Cisneros, George Singer, Ivan Titov, Illia Gumenchuk, Yongjie Zhao, Rosa-María Jiménez-Rodríguez, Lu Liang, Gang Chen, Oleksandr Pyptiuk, Firdevs Aksoy, Halley Rogers, Michele Wible, Francis F Arhin, Alison Luckey, Joanne L Leaney, Rienk Pypstra†, Joseph W Chow, for the COMBACTE-CARE consortium REVISIT study group‡*

*Lancet Infect Dis 2025; 25: 218–30*

- Etude internationale, randomisée, ouverte.
- Pneumonies, y compris VAP
- Infections intra-abdominales compliquées

- Randomisation 2:1 :
  - Aztreonam/Avibactam ± MTZ (si infection abdo)
  - Méropénème 1g x 3/j ± colistine 9MU, puis 9 MU/j en 2 ou 3 x

- Critère principal : guérison clinique J28

- Non-infériorité

- 5-14 j si infection abdominale
- 7-14 j si pneumonie

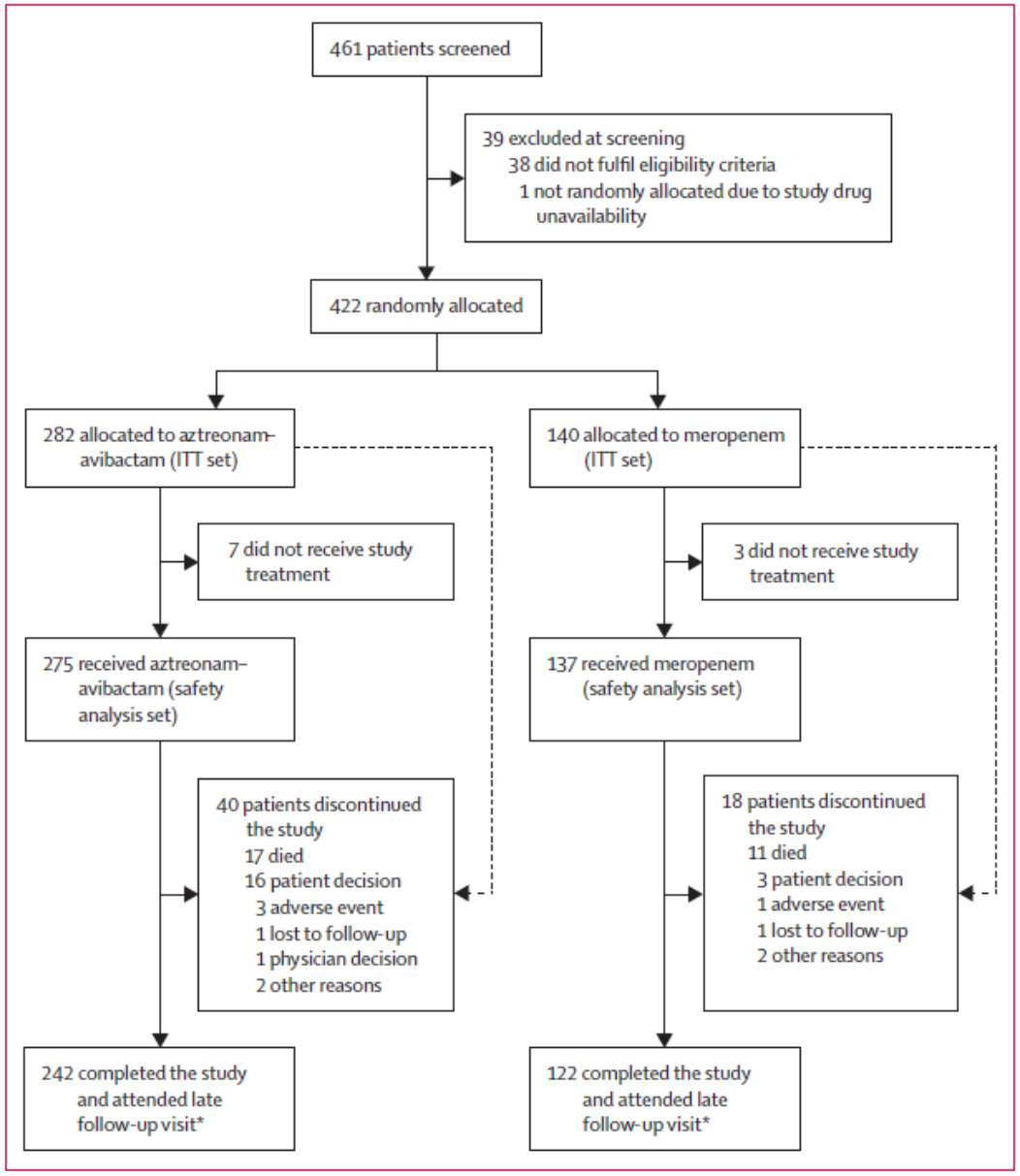



***Figure:*** **Trial profile**
ITT=intention-to-treat. *The late follow-up visit was conducted at day 45 ± 3 days.

- 74 % infections abdominales
  - Dont 51 % appendicites ou abcès péri-appendiculaires
  - Majorité de patients peu graves
- 26 % pneumonies
  - Dont 45 et 50 % VAP
  - Majorité de patients de gravité modérée à sévère

| | cIAI | | HAP–VAP | | Overall | |
|---|---|---|---|---|---|---|
| | Aztreonam–avibactam group (n=208) | Meropenem group (n=104) | Aztreonam–avibactam group (n=74) | Meropenem group (n=36) | Aztreonam–avibactam group (n=282) | Meropenem group (n=140) |
| **APACHE II score category*** | | | | | | |
| ≤10 | 162 (78%) | 80 (77%) | 8 (11%) | 4 (11%) | 170 (60%) | 84 (60%) |
| >10 | 46 (22%) | 24 (23%) | 66 (89%) | 31 (86%) | 112 (40%) | 55 (39%) |
| **Primary cIAI diagnosis** | | | | | | |
| Acute gastric or duodenal perforations | 16 (8%) | 10 (10%) | NA | NA | 16 (6%) | 10 (7%) |
| Appendiceal perforation or peri-appendiceal abscess | 106 (51%) | 49 (47%) | NA | NA | 106 (38%) | 49 (35%) |
| Cholecystitis-gangrenous rupture or perforation or progression beyond gallbladder wall | 30 (14%) | 19 (18%) | NA | NA | 30 (11%) | 19 (14%) |
| Diverticular disease with perforation or abscess | 15 (7%) | 6 (6%) | NA | NA | 15 (5%) | 6 (4%) |
| Intra-abdominal abscess | 26 (13%) | 13 (13%) | NA | NA | 26 (9%) | 13 (9%) |
| Other secondary peritonitis | 11 (5%) | 4 (4%) | NA | NA | 11 (4%) | 4 (3%) |
| Traumatic perforation of the intestines | 4 (2%) | 3 (3%) | NA | NA | 4 (1%) | 3 (2%) |
| **Type of pneumonia** | | | | | | |
| HAP | NA | NA | 41 (55%) | 18 (50%) | 41 (15%) | 18 (13%) |
| VAP | NA | NA | 33 (45%) | 18 (50%) | 33 (12%) | 18 (13%) |
| **Mechanical ventilation status at baseline** | | | | | | |
| Yes | NA | NA | 38 (51%) | 19 (53%) | 38 (13%) | 19 (14%) |
| No | NA | NA | 36 (49%) | 17 (47%) | 36 (13%) | 17 (12%) |

| | cIAI | | HAP–VAP | | Overall | |
|---|---|---|---|---|---|---|
| | Aztreonam–avibactam group (n=139) | Meropenem group (n=75) | Aztreonam–avibactam group (n=38) | Meropenem group (n=19) | Aztreonam–avibactam group (n=177) | Meropenem group (n=94) |
| Enterobacterales | 137 (99%) | 70 (93%) | 28 (74%) | 17 (89%) | 165 (93%) | 87 (93%) |
| *Escherichia coli* | 115 (83%) | 55 (73%) | 3 (8%) | 4 (21%) | 118 (67%) | 59 (63%) |
| *Klebsiella pneumoniae* | 17 (12%) | 13 (17%) | 17 (45%) | 12 (63%) | 34 (19%) | 25 (27%) |
| *Proteus mirabilis* | 3 (2%) | 5 (7%) | 3 (8%) | 1 (5%) | 6 (3%) | 6 (6%) |
| *Klebsiella oxytoca* | 5 (4%) | 1 (1%) | 1 (3%) | 1 (5%) | 6 (3%) | 2 (2%) |
| *Enterobacter cloacae* | 4 (3%) | 1 (1%) | 2 (5%) | 0 | 6 (3%) | 1 (1%) |
| Gram-negative bacteria other than Enterobacterales | | | | | | |
| *Pseudomonas aeruginosa* | 9 (6%) | 4 (5%) | 11 (29%) | 2 (11%) | 20 (11%) | 6 (6%) |

Carmeli Y *et al*. Lancet Inf Dis 2025

| | cIAI | | | HAP–VAP | | | Overall | | |
|---|---|---|---|---|---|---|---|---|---|
| | Aztreonam–avibactam group | Meropenem group | Difference, % (95% CI) | Aztreonam–avibactam group | Meropenem group | Difference, % (95% CI) | Aztreonam–avibactam group | Meropenem group | Difference, % (95% CI) |
| ITT analysis set | 159/208 (76·4%, 70·3 to 81·8) | 77/104 (74·0%, 65·0 to 81·7) | 2·4% (–7·4 to 13·0) | 34/74 (45·9%, 34·9 to 57·3) | 15/36 (41·7%, 26·7 to 57·9) | 4·3% (–15·5 to 23·1) | 193/282 (68·4%, 62·8 to 73·7) | 92/140 (65·7%, 57·6 to 73·2) | 2·7% (–6·6 to 12·4) |
| CE analysis set | 143/168 (85·1%, 79·2 to 89·9) | 66/83 (79·5%, 69·9 to 87·1) | 5·6% (–4·0 to 16·6) | 21/45 (46·7%, 32·7 to 61·1) | 12/22 (54·5%, 34·3 to 73·7) | –7·9% (–31·9 to 17·3) | 164/213 (77·0%, 71·0 to 82·3) | 78/105 (74·3%, 65·3 to 81·9) | 2·7% (–7·0 to 13·2) |

Data are n/N (%, 95% CI) unless otherwise stated. 95% CIs for clinical cure rates were computed using Jeffreys method. CE=clinically evaluable. cIAI=complicated intra-abdominal infection. HAP–VAP=hospital-acquired pneumonia or ventilator-associated pneumonia. ITT=intention-to-treat.

***Table 3:*** **Adjudicated clinical response at the test-of-cure visit**

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# Anciennes molécules, nouvelles utilisations

Clinical Microbiology and Infection 31 (2025) 839–846

Contents lists available at ScienceDirect

Clinical Microbiology and Infection

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Original article

# Effectiveness and tolerability of intravenous fosfomycin in treating complicated urinary tract infections caused by *Escherichia coli*: a prospective cohort study from the FOSFOMIC project

Elisa Moreno-Mellado [1,2,3], Abdullah Tarik Aslan [4], Murat Akova [4], Eva León [2,5], Nicolás Merchante [2,5], David Vinuesa [6], Encarnación Moral-Escudero [7], Svetlana Sadyrbaeva-Dolgova [8], Salvador López-Cárdenas [9], Ángela Cano-Yuste [3,10], Matteo Rinaldi [11,12], María Núñez-Núñez [6], Maddalena Giannella [11,12], Jesús Sojo-Dorado [1,2,3], Ana Cristina Antolí-Royo [13], Natalia Chacón [1,2,3,9], Vicente Merino-Bohórquez [14], Inés Portillo [1,15], Jesús Rodríguez-Baño [1,2,3], Fernando Docobo-Pérez [1,15,†], Belén Gutiérrez-Gutiérrez [1,2,3,*,†], FOSFOMIC team*

Etude internationale

**Infections urinaires**

**Cas-témoin :**

- Fosfomycine IV ≤ 24 h après réception de l'antibiogramme et pendant ≥ 72 h
- Vs autres (bêta-lactamines, fluoroquinolones…)

**Critères d'évaluation :**

- Guérison clinique et microbiologique à J21
- Mortalité et rechutes à J30
- Effets indésirables

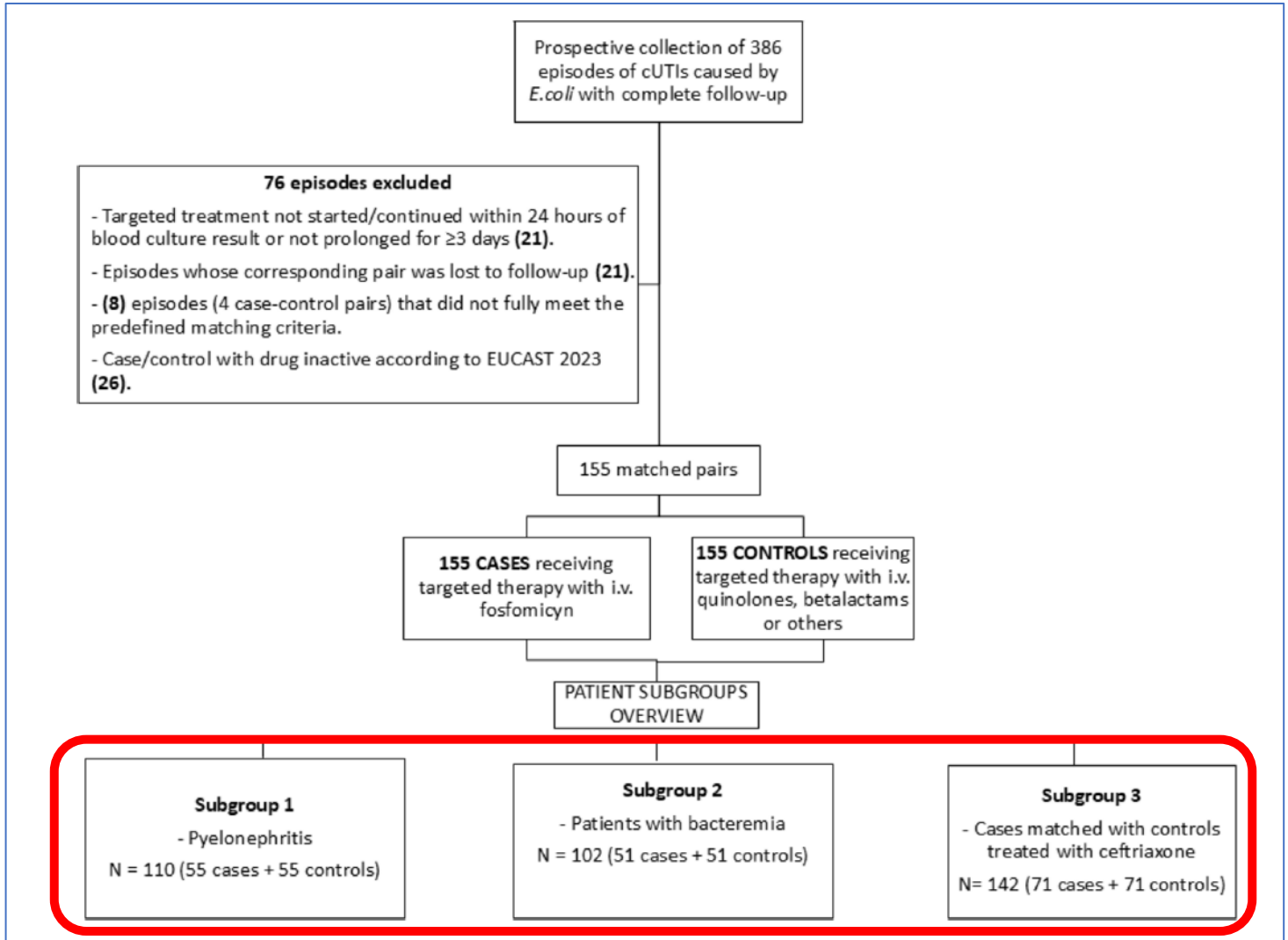


**Fig. 1.** Flow chart. cUTI, complicated urinary tract infection; i.v., intravenous; EUCAST, European Committee on Antimicrobial Susceptibility Testing.

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# Traitements reçus

**Fosfomycine adaptée à la fonction rénale :**

- 4g x 4/j : 80 %
- 4g x 3/j : 14,8 %
- 4g x 2/j : 5,2 %

**Autres :**

- Ceftriaxone : 55,4 %
- Ciprofloxacine : 10,3 %
- Amoxicilline-acide clavulanique : 9 %
- Pipéracilline/Tazobactam : 7,1 %
- Méropénème : 7,1 %
- Ertapénème : 5,2 %
- Autres : 5,9 %

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# Résultats

**Table 2**
Outcomes of matched patients with complicated urinary tract infections caused by *Escherichia coli*[a]

| Outcome | Treatment with fosfomycin ($n = 155$) | Treatment with other drugs ($n = 155$) | Treatment difference (95% CI)[b] | p |
|---|---|---|---|---|
| Clinical and microbiological cure at day 21[c] | 101 (65.2) | 98 (63.2) | +2.0 (−8.7 to 12.6) | 0.69 |
| Recurrence until day 30 | 22 (14.2) | 16 (10.3) | +3.9 (−3.4 to 11.1) | 0.26 |
| Severe adverse effects[d] | 3 (1.9) | 1 (0.6) | +1.3 (−1.2 to 3.8) | 0.34 |
| Non-severe adverse effects[e] | 36 (23.2) | 12 (7.7) | +15.6 (7.6–23.3) | <0.001 |
| Mortality at day 30 | 3 (1.9) | 9 (5.8) | −3.9 (−8.1 to 0.4) | 0.08 |

[e] Non-severe adverse effects observed during administration of targeted intravenous therapy were: fosfomycin group, nausea (16), phlebitis (5), abdominal discomfort (10), headache (5); other drugs group: pruritus (3), diarrhoea (6), nausea (3). Among these, 19.4% (7/36) of cases in the fosfomycin group and 25% (3/12) of cases in the other drugs group resulted in treatment discontinuation. The majority of non-severe adverse events—83.3% (30/36) in the fosfomycin group and 75% (9/12) in the other drugs group—occurred during the intravenous targeted treatment phase or within 48 hours of its completion.

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# Antimicrobial activity of temocillin on ceftriaxone-resistant and ceftriaxone-susceptible isolates of *Neisseria gonorrhoeae*

*J Antimicrob Chemother* 2025; **80**: 2879–2881
https://doi.org/10.1093/jac/dkaf235
Advance Access publication 30 July 2025

**Antimicrobial activity of temocillin on ceftriaxone-resistant and ceftriaxone-susceptible isolates of *Neisseria gonorrhoeae***

Julie Brousseau[1,2,3], François Caméléna[1,2,3], Fabienne Meunier[3], Anders Boyd[4,5,6], Thibault Chiarabini[7], Laure Surgers[7,8]† and Béatrice Berçot[1,2,3]*†

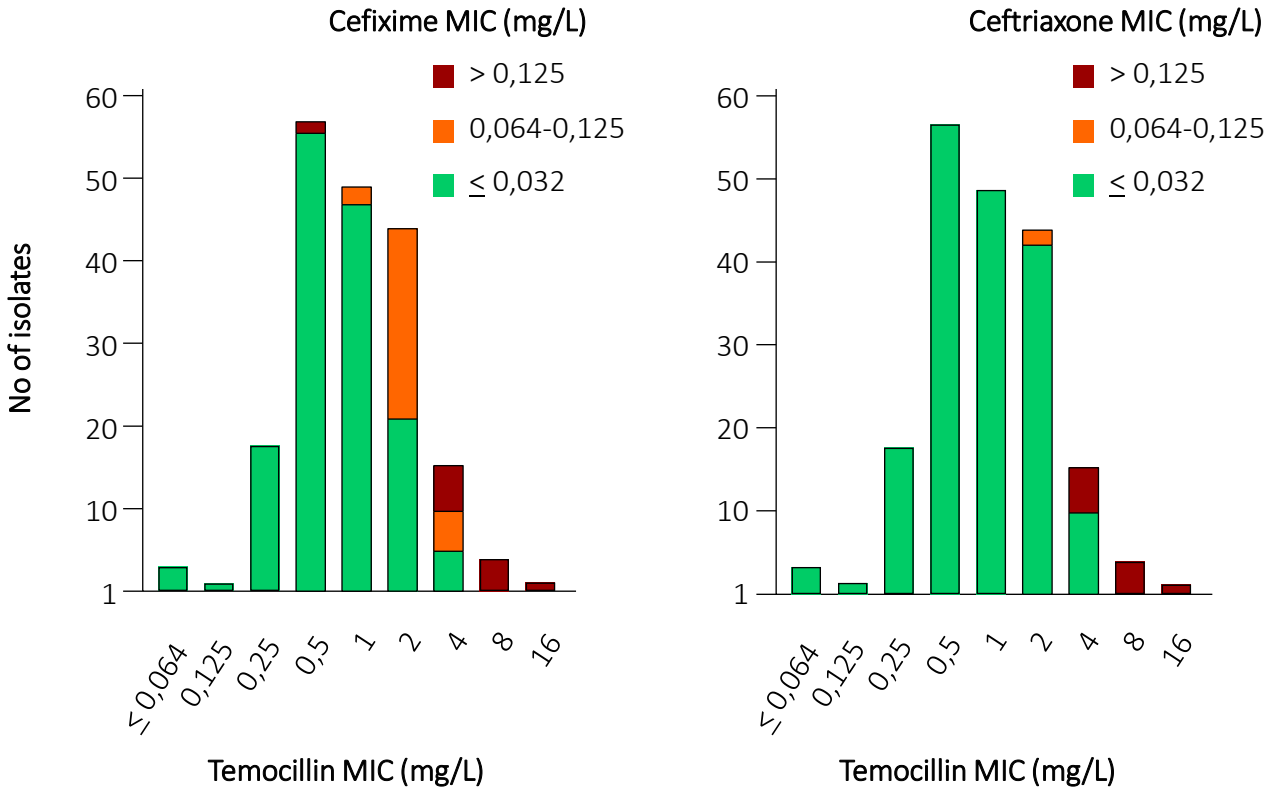
- Témocilline : active sur Neisseria sp
- Administration IV ou IM

- Détermination des CMI sur 192 souches, y compris de sensibilité diminuée ou résistantes au céfixime et à la ceftriaxone

CMI Témocilline ≤ 8 mg/L dans 99 % des cas.
≤ 2 mg/L dans 90 % des cas.

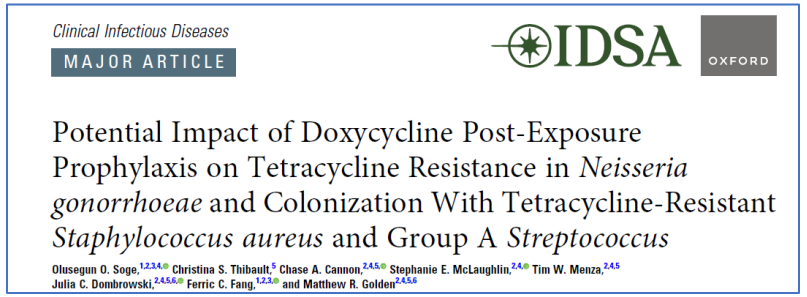
Pas de résistance croisée entre Céfixime/Ceftriaxone et Témocilline

Démarrage PHRC sur traitement des infections à gonocoque par Témocilline 1 administration IV ou IM de 2 g.




*Brousseau J et al, J Antimicrob Chemother 2025;80:2879-2881*

# Potential Impact of Doxycycline Post-Exposure Prophylaxis on Tetracycline Resistance in *Neisseria gonorrhoeae* and Colonization With Tetracycline-Resistant *Staphylococcus aureus* and Group A *Streptococcus*




- Adoption par le comté de Washington (Seattle) des recommandations issues de doxyPEP en juin 2023
- Mise en place en août 2023 d'un programme de surveillance du portage de *S. aureus* et Streptocoques du groupe A résistants aux tétracyclines
- Analyse de l'évolution de la résistance aux tétracyclines chez N. gonorrhoeae entre 2016 et 2024

3 266 isolats de *N. gonorrhoeae* isolés chez 2 207 patients entre 2016 et 2024.
200 écouvillonnages nasaux par trimestre à partir d'août 2023.

*Sode O et al, Clin Infec Dis 2025;80(6):1188-1196*

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Clinical Infectious Diseases
MAJOR ARTICLE
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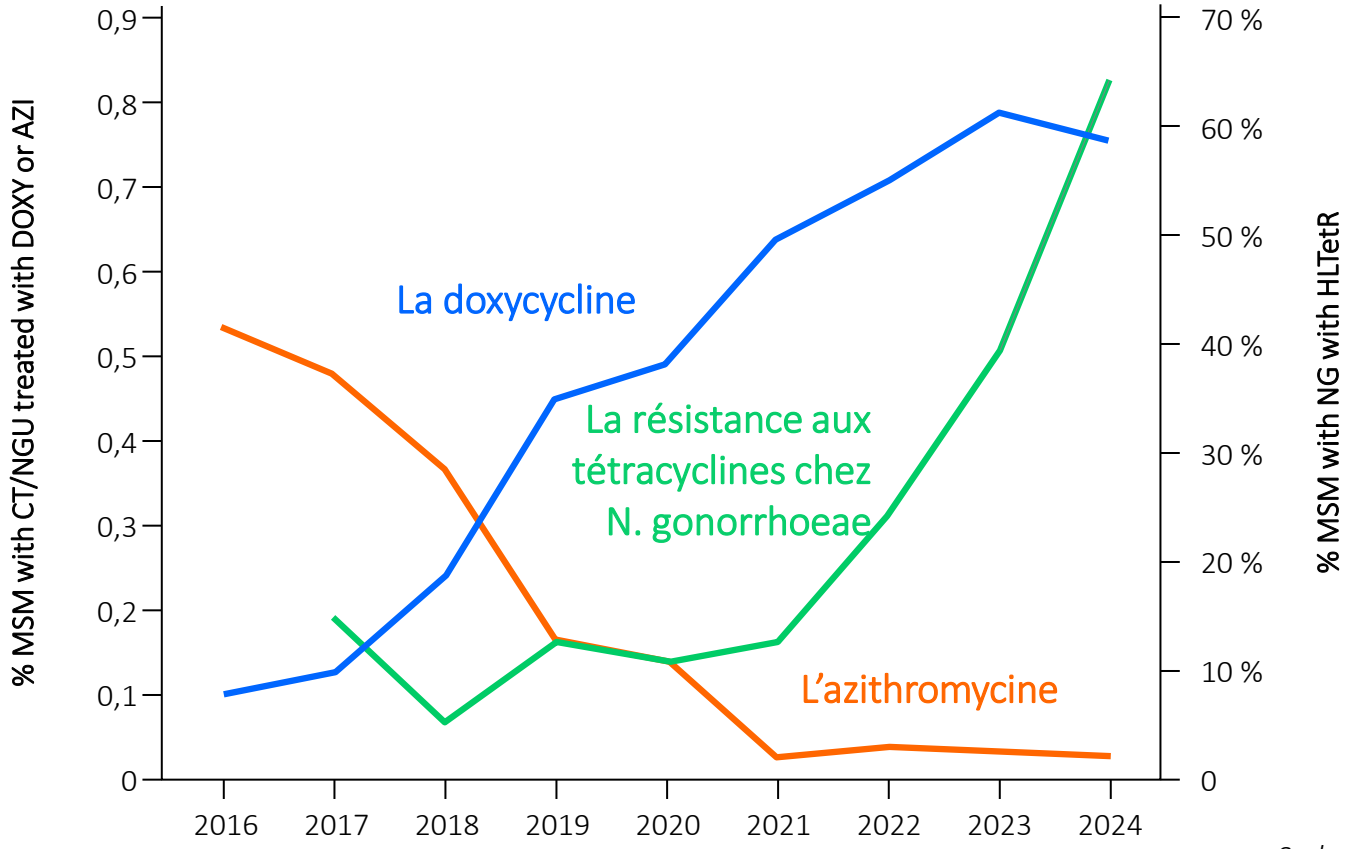
Potential Impact of Doxycycline Post-Exposure Prophylaxis on Tetracycline Resistance in *Neisseria gonorrhoeae* and Colonization With Tetracycline-Resistant *Staphylococcus aureus* and Group A *Streptococcus*

Olusegun O. Soge,[1,2,3,4] Christina S. Thibault,[5] Chase A. Cannon,[2,4,5] Stephanie E. McLaughlin,[2,4] Tim W. Menza,[2,4,5] Julia C. Dombrowski,[2,4,5,6] Ferric C. Fang,[1,2,3] and Matthew R. Golden[2,4,5,6]

- Evolution des prescriptions entre 2016 et 2024

Proportion of PHSKC SHC MSM diagnosed with CT or NGU who were treated with doxycycline or azithromycin within 7 day, and proportion of MSM NG isolates with high level tetracycline resistance, 2016-2024

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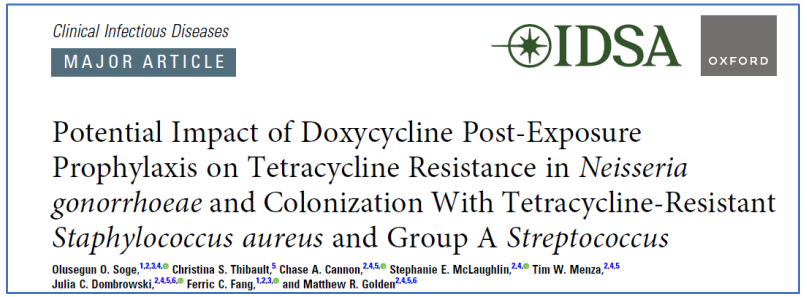


Résistance à la doxycycline chez utilisateurs de doxy PEP :

- *S. aureus* : 18 % vs 8 % (p< 0,0001)
- SGA : 9 % vs 4 % (p = 0,001)

*S. aureus* and GAS Screening and Tetracycline Susceptibility Results, by Recent Doxycycline Post-exposure Prophylaxis (doxy PEP) Use Status

| | Total | | Used doxy PEP in Past Month | | Did not Used doxy PEP in Past Month | | |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | P value |
| Screened for *S. aureus* | 838 | 100 | 227 | 27% | 602 | 72% | |
| Screened positive for: | | | | | | | |
| *S. aureus* | 281 | 34% | 62 | 27% | 216 | 36% | 0.020 |
| MRSA | 12 | 1% | 2 | 1% | 10 | 2% | 0.528 |
| Tetracycline-resistant *S. aureus* | 89 | 11% | 41 | 18% | 47 | 8% | < 0.0001 |
| Tetracycline-resistant MRSA | 10 | 1% | 2 | 1% | 8 | 1% | 0.736 |
| Screened for GAS | 512 | 100% | 158 | 31% | 352 | 69% | |
| Screened positive for: | | | | | | | |
| GAS | 28 | 5% | 15 | 9% | 13 | 4% | 0.008 |
| Tetracycline-resistant GAS | 23 | 4% | 12 | 8% | 11 | 3% | 0.025 |

*Sode O et al, Clin Infec Dis 2025;80(6):1188-1196*

- **Merci pour votre attention !**