

MJIMA OTURUMU
LİTERATÜR SAATI
DÜNYADA ÖNE ÇIKAN YAYINLAR

Ediz Tütüncü

12. Türkiye EKMUD Bilimsel Kongresi


21 Mayıs 2024, Antalya

JOURNAL ARTICLE

ACCEPTED MANUSCRIPT

The 2023 Duke-ISCVID Criteria for Infective Endocarditis: Updating the Modified Duke Criteria

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

Clinical Infectious Diseases, ciad271, <https://doi.org/10.1093/cid/ciad271>

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Article history ▼

- International Society for Cardiovascular Infectious Diseases (ISCVID)

| | |
|---------------------------------|--|
| PATHOLOGIC CRITERIA | Change |
| Microorganism identification | Microorganisms identified in appropriate sample by PCR, amplicon or metagenomic sequencing, or <i>in situ</i> hybridization |
| MAJOR CLINICAL CRITERIA | Change |
| Microbiology | |
| Blood cultures | Removed requirements for timing and separate venipunctures for blood cultures. |
| Definition of typical organisms | <p>Added typical pathogens:</p> <p>1) <i>S. lugdunensis</i>; <i>E. faecalis</i>; all streptococci except <i>S. pneumoniae</i> and <i>S. pyogenes</i>; <i>Granulicatella spp.</i>; <i>Abiotrophia spp.</i>; & <i>Gemella spp.</i></p> <p>2) Organisms to be considered "typical" IE pathogens in the setting of intracardiac prosthetic material: coagulase negative staphylococci, <i>Corynebacterium striatum</i>; <i>C. jeikeium</i>, <i>Serratia marcescens</i>, <i>Pseudomonas aeruginosa</i>, <i>Cutibacterium acnes</i>, non-tuberculous mycobacteria, and <i>Candida spp.</i></p> |
| Other Microbiologic tests | <p>Added new Major Criteria for fastidious pathogens:</p> <p>1) PCR or amplicon/metagenomic sequencing identifies <i>C. burnetii</i>, <i>Bartonella sp.</i>, or <i>T. whipplei</i> from blood; or</p> <p>2) IFA \geq 1:800 for IgG antibodies identifies <i>B. henselae</i> or <i>B. quintana</i>.</p> |

| | |
|---------------------------------|---|
| Imaging | |
| Echocardiography | Similar to earlier versions. Cornerstone of imaging criterion. |
| Cardiac Computerized Tomography | Added new Major Criterion. Findings equivalent to echocardiography. |
| [18F]FDG PET/CT | Added new Major Criterion. Findings for native valve, cardiac device, or prosthetic valve > 3 months after cardiac surgery are equivalent to echocardiography. |
| Surgical | Added new Major Criterion. Intraoperative inspection constitutes Major Criterion in absence of Major Criterion by cardiac imaging or histopathology. |
| MINOR CLINICAL CRITERIA | |
| Predisposition | Added Transcatheter valve implant/ repair, endovascular CIED, and prior diagnosis of IE. |
| Fever | Unchanged. |
| Vascular phenomena | Added splenic and cerebral abscess. |

VIEWPOINTS ARTICLE**Make modern microbiology matter more in the 2023 ESC guidelines for the management of infective endocarditis**Karl Oldberg^{1,2} and Magnus Rasmussen^{1,3*}

¹Department of Clinical Sciences Lund, Division of Infection Medicine, Lund University, SE-221 00 Lund, Sweden; ²Department of Clinical Microbiology, Infection Control and Prevention,

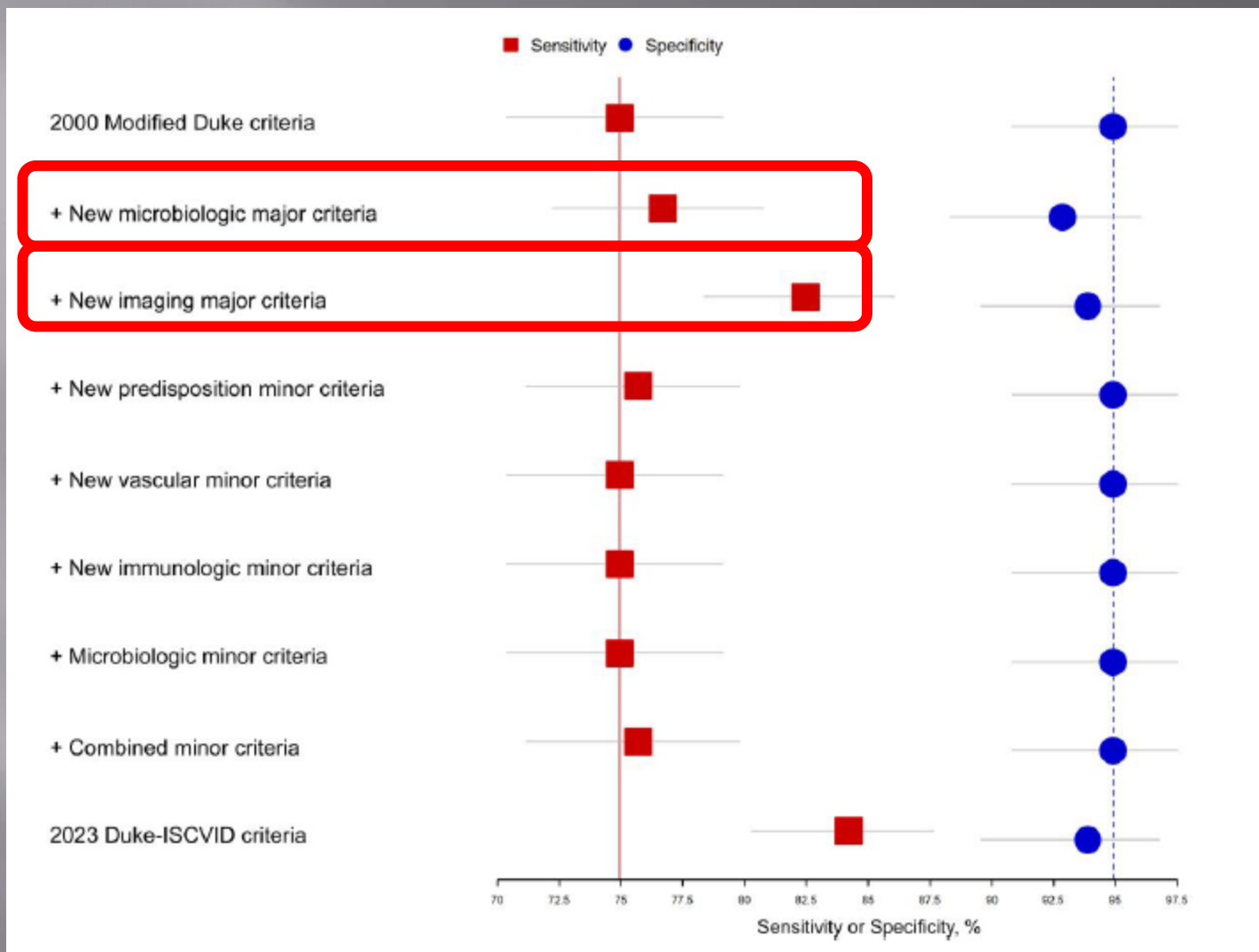
The ESC 2023 guidelines for the management of endocarditis stress that a multidisciplinary approach is needed to manage patients with infective endocarditis (IE). **In our view the guidelines do not include the relevant perspectives from modern microbiology.** The diagnostic criteria for IE were changed in the ESC 2023 guidelines and many IE-causing pathogens are either not clearly defined or not even mentioned. Moreover, the improved understanding of the relation between bacterial species and the risk for IE has not been implemented. **The guidelines give detailed, and in our view not correct, instructions about diagnostic testing in blood culture negative IE without presenting proper evidence.** Other important diagnostic aspects such as the value of repeated blood cultures and incubation time for blood cultures are not discussed. We believe that **a multidisciplinary collaboration, including microbiologists, would have improved these guidelines** and we hope for a future harmonization of diagnostic criteria for IE.

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

Thomas W. van der Vaart,^{1,2,3,✉} Patrick M. M. Bossuyt,⁴ David T. Durack,² Larry M. Baddour,^{5,6} Arnold S. Bayer,^{7,8} Emanuele Durante-Mangoni,⁹ Thomas L. Holland,^{2,3} Adolf W. Karchmer,¹⁰ Jose M. Miro,^{11,12} Philippe Moreillon,¹³ Magnus Rasmussen,^{14,✉} Christine Selton-Suty,^{15,16} Vance G. Fowler Jr.,^{2,3} and Jan T. M. van der Meer¹

¹Division of Infectious Diseases, Amsterdam University Medical Center, Universiteit van Amsterdam, Amsterdam, The Netherlands; ²Division of Infectious Diseases, Duke University Medical Center, Durham, North Carolina, USA; ³Duke Clinical Research Institute, Durham, North Carolina, USA; ⁴Department of Epidemiology and Data Science, Amsterdam University Medical Center, Universiteit

- Ekim 2016-Mart 2021 arası olası İE tanısı ile izlenen 595 hasta



- Duyarlılık %74,9 vs %84,2,
- Özgüllük %94,9 vs %93,9

Evaluation of the 2023 Duke-International Society of Cardiovascular Infectious Diseases Criteria in a Multicenter Cohort of Patients With Suspected Infective Endocarditis

Matthaios Papadimitriou-Olivgeris,^{1,✉} Pierre Monney,² Michelle Frank,³ Georgios Tzimas,² Piergiorgio Tozzi,⁴ Matthias Kirsch,⁴ Mathias Van Hemelrijck,⁵ Robert Bauernschmitt,⁵ Jana Epprecht,⁶ Benoit Guery,¹ and Barbara Hasse⁶

¹Infectious Diseases Service, Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland; ²Department of Cardiology, Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland; ³Department of Cardiology, University Hospital Zurich and University of Zurich, Zurich, Switzerland; ⁴Department of Cardiac Surgery, Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland; ⁵Department of Cardiac Surgery, University Hospital Zurich and University of Zurich, Zurich, Switzerland; and ⁶Department of Infectious Diseases and Hospital Epidemiology, University Hospital Zurich and University of Zurich, Zurich, Switzerland

- 2014-2022 arası izlenen 2132 olası İE epizodu
- ...önceki versiyonlara göre daha yüksek duyarlılık, daha düşük özgüllük...

Association Between Vegetation Size and Outcome in the Partial Oral Antibiotic Endocarditis Treatment Trial

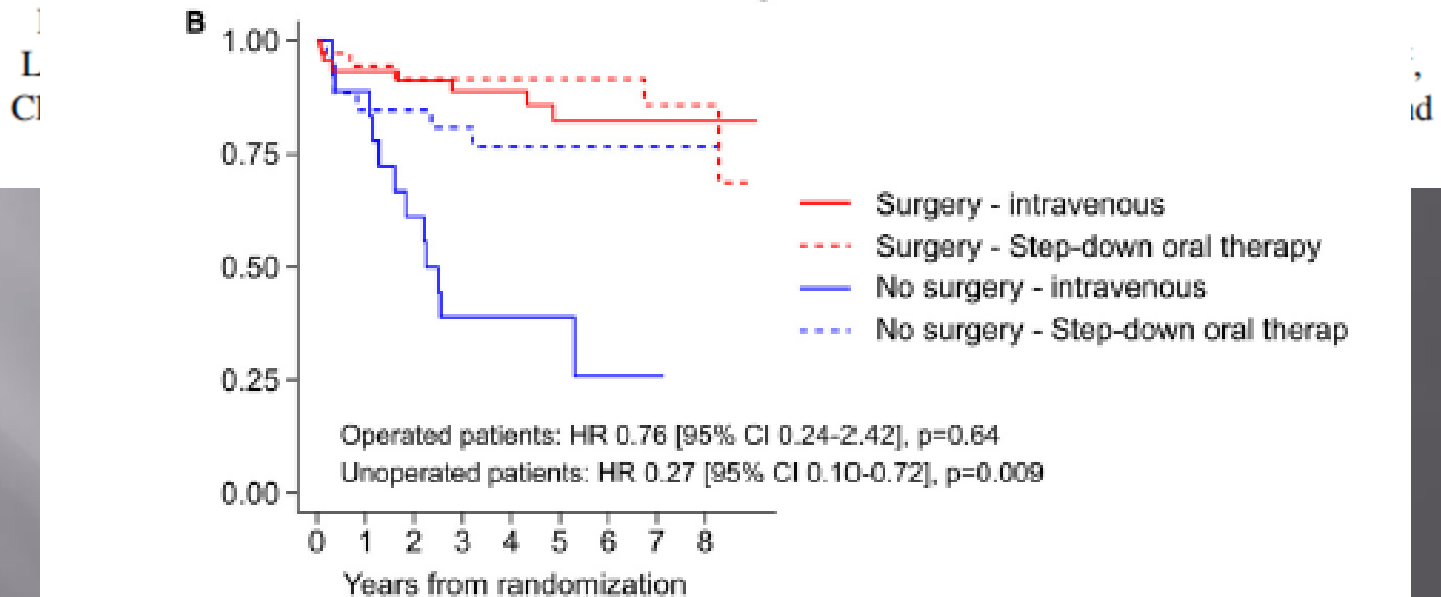
Rasmus Carter-Storch, MD, PhD^{a,*}, Mia Marie Pries-Heje, MD^b, Jonas A. Povlsen, MD, PhD^c, Ulrik Christensen, MD^d, Sabine U. Gill, MD, PhD^a, Julie Glud Hjulmand, MBBS^b, Niels E. Bruun, MD, DMSc^e, Hanne Elming, MD, PhD^e, Trine Madsen, MD, PhD^d, Kurt Fursted, MD, DMSci^f, Martin Schultz, MD, PhD^g, Jens J. Christensen, MD, DMSci^h, Flemming Rosenvinge, MDⁱ, Jannik Helweg-Larsen, MD, DMSci^b, Emil Fosbøl, MD, PhD^{b,j}, Lars Køber, MD, DMSci^b, Christian Torp-Pedersen, MD, DMSci^k, Niels Tønder, MD, DMSci^k, Claus Moser, MD, PhD^{l,m}, Kasper Iversen, MD, DMSc^{g,j}, Henning Bundgaard, MD, DMSc^b, and Nikolaj Ihlemann, MD, PhDⁿ

- 368 IE hastası
- Büyük vejetasyon (>10 mm) varlığı ya da cerrahi girişim uygulanan hastalarda sürekli IV antibiyotik tedavisi ile step down oral tedavi karşılaştırılması

Association Between Vegetation Size and Outcome in the Partial Oral Antibiotic Endocarditis Treatment Trial

Rasmus Carter-Storch, MD, PhD^{a,*}, Mia Marie Pries-Heje, MD^b, Jonas A. Povlsen, MD, PhD^c, Ulrik Christensen, MD^d, Sabine U. Gill, MD, PhD^a, Julie Glud Hjulmand, MBBS^b, Niels E. Bruun, MD, DMSc^e, Hanne Elming, MD, PhD^e, Trine Madsen, MD, PhD^d

Event-free survival - Vegetations ≥ 10 mm



- Başlangıçta büyük vejetasyon ya da erken cerrahi girişim oral tedaviye geçişe engel değil..

Can the Future of ID Escape the Inertial Dogma of Its Past? The Exemplars of Shorter Is Better and Oral Is the New IV

Kusha Davar,^{1,6} Devin Clark,¹ Robert M. Centor,² Fernando Dominguez,¹ Bassam Ghanem,³ Rachael Lee,⁴ Todd C. Lee,^{5,6} Emily G. McDonald,^{6,6} Matthew C. Phillips,^{7,8} Parham Sendi,⁹ and Brad Spellberg¹

¹Los Angeles County + University of Southern California (LAC+USC) Medical Center, Los Angeles, California, USA, ²Department of Medicine, Birmingham Veterans Affairs (VA) Medical Center, Birmingham, Alabama, Birmingham, Alabama, USA, ³King Abdulaziz Medical City, Jeddah, Saudi Arabia, ⁴Department of Medicine, Division of Infectious Diseases, University of Alabama at Birmingham, Birmingham, Alabama, USA, ⁵Division of Infectious Diseases, Department of Medicine, McGill University, Montreal, Canada, ⁶Division of General Internal Medicine, Department of Medicine, McGill University, Montreal, Quebec, Canada, ⁷Division of Infectious Diseases, Department of Medicine, Massachusetts General Hospital, Boston, Massachusetts, USA, ⁸Harvard Medical School, Boston, Massachusetts, USA, and ⁹Institute for Infectious Diseases, University of Bern, Bern, Switzerland

- İki tarihi dogma
 - Geleneksel antimikrobiyal tedavi süreleri
 - Belli tanılarda sadece IV tedavi kullanılması

Can the Future of ID Escape the Inertial Dogma of Its Past? The Exemplars of Shorter Is Better and Oral Is the New IV

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- ...daha kısa süreli tedavilerin yeterli olduğunu gösteren >120 RCT,
- Osteomyelit, bakteriyemi, endokardit tedavisinde oral tedavinin IV tedavi kadar başarılı olduğunun gösterildiği 21 RCT var.

Table 1. Summary of Shorter Is Better Randomized Controlled Trials

| Diagnosis | Short (d) | Long (d) | Result | No. of RCTs | Refs. |
|---|------------|--------------|--------|-------------|----------|
| Community-acquired pneumonia | 3–5 | 5–14 | Equal | 14 | [32–45] |
| Atypical community-acquired pneumonia | 1 | 3 | Equal | 1 | [46] |
| Possible pneumonia in ICU | 3 | 14–21 | Equal | 1 | [47] |
| Ventilator-associated pneumonia | 8 | 15 | Equal | 2 | [48, 49] |
| Complicated UTI/pyelonephritis | 5 or 7 | 10 or 14 | Equal | 9 | [50–58] |
| Complicated intra-abdominal infection | 4–8 | 10–15 | Equal | 2 | [59, 60] |
| Gram-negative bacillus bacteremia | 7 | 14 | Equal | 3 | [61–63] |
| Cellulitis/wound/abscess | 5–6 | 10 | Equal | 4 | [64–67] |
| Osteomyelitis | 42 | 84 | Equal | 2 | [68, 69] |
| Osteomyelitis s/P implant removal | 28 | 42 | Equal | 1 | [70] |
| Diabetic osteomyelitis s/P Debridement | 10–21 | 42–90 | Equal | 2 | [71, 72] |
| Septic arthritis | 14 | 28 | Equal | 1 | [73] |
| Acute exacerbations of bronchitis and sinusitis | ≤5 | ≥7 | Equal | >25 | [74–81] |
| Neutropenic fever | AFx72 h/3d | ANC > 500/9d | Equal | 2 | [82, 83] |
| Perioperative prophylaxis | 0–1 | 1–5 | Equal | 56 | [84–88] |
| <i>Plasmodium vivax</i> malaria | 7 | 14 | Equal | 1 | [89] |
| Erythema migrans (Lyme disease) | 7 | 14 | Equal | 1 | [90] |

Table 2. Summary of Randomized Controlled Trials of Oral vs IV-Only Therapy

| Diagnosis | No. of RCTs Demonstrating IV > Oral | No. of RCTs Demonstrating Oral ≥ IV | References |
|---------------|-------------------------------------|--|----------------|
| Osteomyelitis | 0 | 9 (all equal) | [103–111] |
| Bacteremia | 0 | 10 (8 equal, 2 superior cure for oral) | [109, 112–120] |
| Endocarditis | 0 | 3 (2 equal, 1 superior mortality for oral) | [121–123] |

Abbreviations: IV, intravenous; RCT, randomized controlled trial.

Oral Is the New IV--Challenging Decades of Blood and Bone Infection Dogma: A Systematic Review

Noah Wald-Dickler, MD^{1,2,3}, Paul D. Holtom, MD^{1,2}, Matthew C. Phillips, MD¹, Robert M. Centor, MD^{4,5}, Rachael. A. Lee, MD^{4,5}, Rachel Baden¹, Brad Spellberg^{1,*}

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²Department of Medicine, Keck School of Medicine of USC, Los Angeles, CA, USA

³Department of Preventive Medicine, Keck School of Medicine of USC, Los Angeles, CA, USA

- Hasta klinik ve hemodinamik olarak stabil,
- Kaynak kontrolü sağlanmış,
- Oral tedavide absorpsiyona ilişkin sorun yok,
- Hedeflenen patojen için literatür verisi var

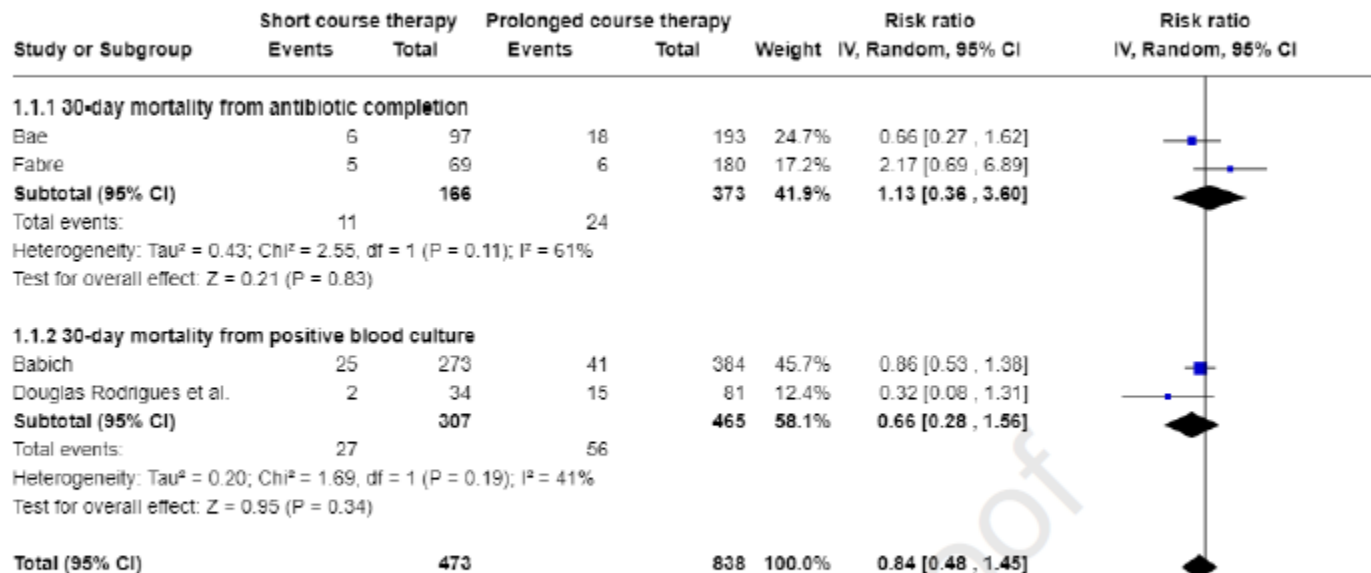
Title: Short Versus Prolonged Duration of Therapy for *Pseudomonas aeruginosa* Bacteremia: A Systematic Review and Meta-analysis

Nischal Ranganath, MD, PhD¹; Leslie C. Hassett, MLS, AHIP²; Omar M. Abu Saleh, MBBS¹; Zachary A. Yetmar, MD^{1,3}

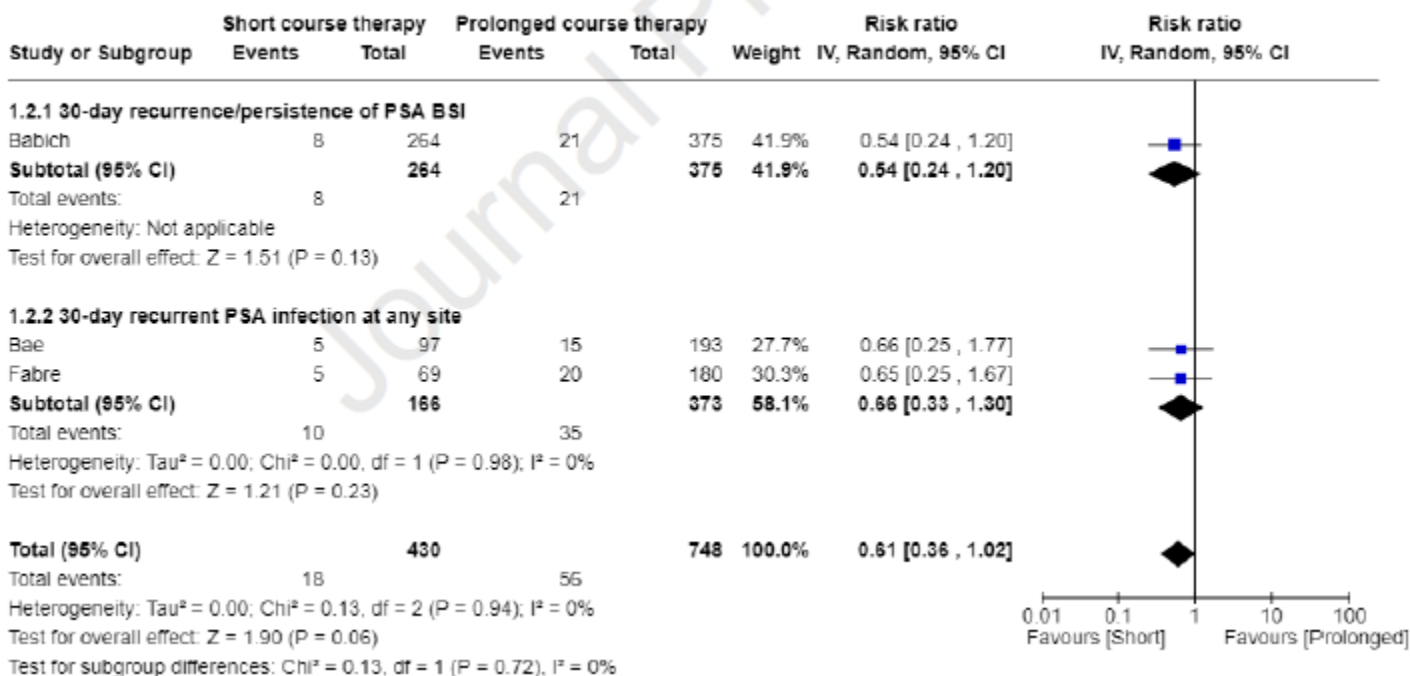
¹Division of Public Health, Infectious Diseases, and Occupational Medicine, Mayo Clinic, Rochester, Minnesota, USA

- *P. aeruginosa* bakteriyemisi
- Sistemik derlemeye alınan 6 çalışma ve toplam 1746 hastanın dahil edildiği meta analiz
- Kısa tedavi ≤ 10 gün

A.



B.



Original article

Switch to oral antibiotics in Gram-negative bacteraemia: a randomized, open-label, clinical trial

Ali S. Omrani ^{1,2,3,*}, Sulieman H. Abujarir ^{1,2,†}, Fatma Ben Abid ^{1,2,4,†}, Shaahd H. Shaar ^{1,†}, Mesut Yilmaz ⁵, Adila Shaukat ^{1,6}, Mussad S. Alsamawi ^{1,7}, Mohamed S. Elgara ⁸, Mohamed Islam Alghazzawi ⁸, Khaled M. Shunnar ⁸, Ahmed Zaqout ^{1,2}, Yasser M. Aldeeb ^{1,7}, Wadha Alfouzan ^{9,10}, Muna A. Almaslamani ^{1,2}, SOAB Study Group^{††}

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²) Division of Infectious Diseases, Department of Medicine, Hamad Medical Corporation, Doha, Qatar

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⁵) Department of Infectious Diseases and Microbiology, Istanbul Medipol University, Istanbul, Turkiye

⁶) Division of Infectious Diseases, Department of Medicine, Al Wakra Hospital, Hamad Medical Corporation, Al Wakra, Qatar

- Monomikrobiyal Enterobakterales bakteriyemisi,
- Etken ≥ 1 oral betalaktam, kinolon, tmp-smx duyarlı,
- 3-5 gün IV tedavi,
- ≥ 48 saat afebril ve hemodinamik olarak stabil,
- Kaynak kontrolü sağlanmış

Switch to oral antibiotics in Gram-negative bacteraemia: a randomized, open-label, clinical trial

Ali S. Omrani ^{1,2,3,*}, Sulieman H. AbuJarir ^{1,2,†}, Fatma Ben Abid ^{1,2,4,†}, Shaahd H. Shaar ^{1,†}, Mesut Yilmaz ⁵, Adila Shaukat ^{1,6}, Mussad S. Alsamawi ^{1,7}, Mohamed S. Elgara ⁸, Mohamed Islam Alghazzawi ⁸, Khaled M. Shunnar ⁸, Ahmed Zaqout ^{1,2}, Yasser M. Aldeeb ^{1,7}, Wadha Alfouzan ^{9,10}, Muna A. Almaslamani ^{1,2}, SOAB Study Group^{††}

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Table 3
Primary and secondary outcomes

| Outcome | Population | IV Group | Oral Group | Difference (95% CI) ^a |
|----------------------------------|-------------------|-----------------------|-----------------------|----------------------------------|
| Treatment failure within 90 d | ITT ^b | 24 (28.2%) | 22 (24.7%) | -3.7% (-16.6% to 9.3%) |
| | mITT ^c | 21 (25.6%) | 18 (21.7%) | -3.7% (-16.6% to 9.2%) |
| 90-d all-cause mortality | ITT ^b | 6 (7.1%) | 7 (7.9%) | 0.8% (-7.0% to 8.6%) |
| | mITT ^c | 3 (3.7%) ^d | 3 (3.6%) ^e | -0.04% (-5.8% to 5.7%) |
| Additional antimicrobial therapy | ITT ^b | 13 (15.3%) | 8 (9.0%) | -6.8% (-16.1% to 2.6%) |
| | mITT ^c | 10 (12.2%) | 4 (4.8%) | -7.1% (-15.5% to 1.3%) |
| Microbiological relapse | ITT ^b | 13 (15.3%) | 10 (11.2%) | -4.1% (-14.1% to 5.9%) |
| | mITT ^c | 10 (12.2%) | 6 (7.2%) | -4.8% (-14.0% to 4.3%) |
| Infection-related re-admission | ITT ^b | 12 (14.1%) | 19 (21.3%) | 7.2% (-4.0% to 18.3%) |
| | mITT ^c | 9 (11.0%) | 15 (18.1%) | 7.5% (-3.1% to 18.1%) |

A Randomized, Open-Label, Non-inferiority Clinical Trial Assessing 7 Versus 14 Days of Antimicrobial Therapy for Severe Multidrug-Resistant Gram-Negative Bacterial Infections: The OPTIMISE Trial Protocol

Beatriz Arns  · Jaqueline Driemeyer C. Horvath  ·

Gabriela Soares Rech  · Guilherme Prates Sesin  ·



Crepin Aziz Jose Oluwafoumi Agani  · Bruna Silveira da Rosa  ·

- MDR GNB'lerin etken olduğu ciddi enfeksiyonların söz konusu olduğu kritik hastalarda 7 vs 14 gün antimikrobiyal tedavi



Systematic Review

Effectiveness and Safety of Linezolid Versus Vancomycin, Teicoplanin, or Daptomycin against Methicillin-Resistant *Staphylococcus aureus* Bacteremia: A Systematic Review and Meta-Analysis



Hitoshi Kawasuji ¹, Kentaro Nagaoka ¹, Yasuhiro Tsuji ², Kou Kimoto ¹, Yusuke Takegoshi ¹, Makito Kaneda ¹, Yushi Murai ¹, Haruka Karaushi ³, Kotaro Mitsutake ³ and Yoshihiro Yamamoto ^{1,*}

- Sistematik derleme ve meta analiz
- MRSA bakteriyemisi olan hastalarda linezolid, vankomisin, teikoplanin ve daptomisinin etkinlik ve güvenliği (n=5328)

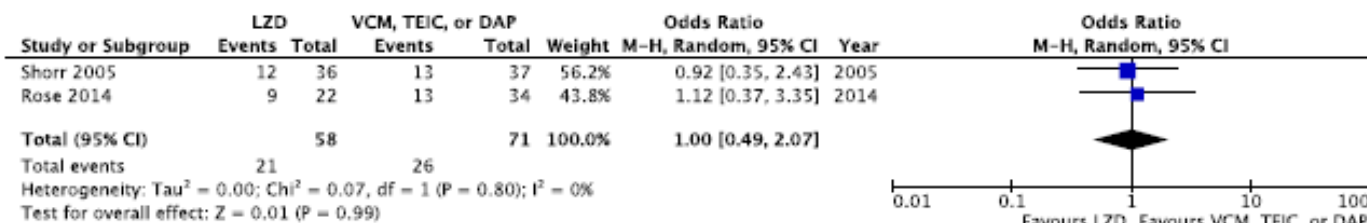


Systematic Review

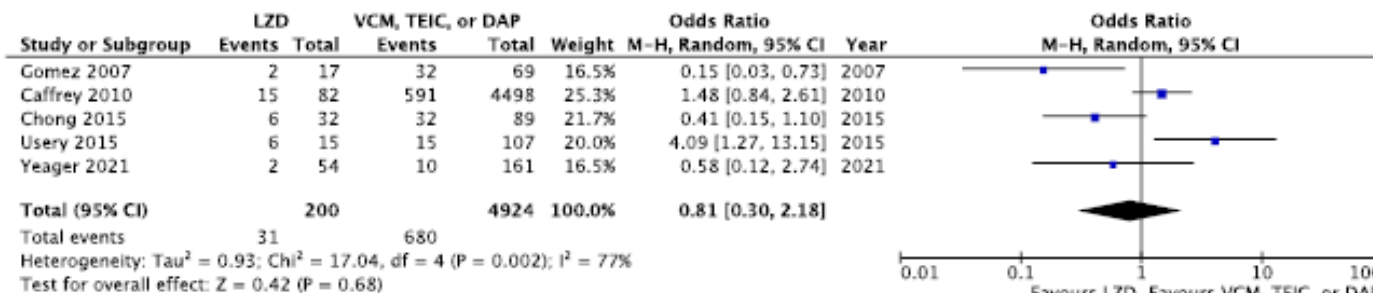
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(A)



(B)



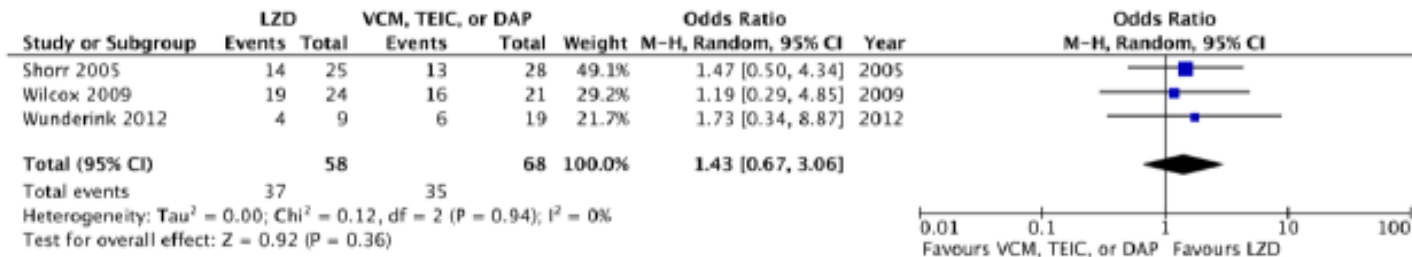


Systematic Review

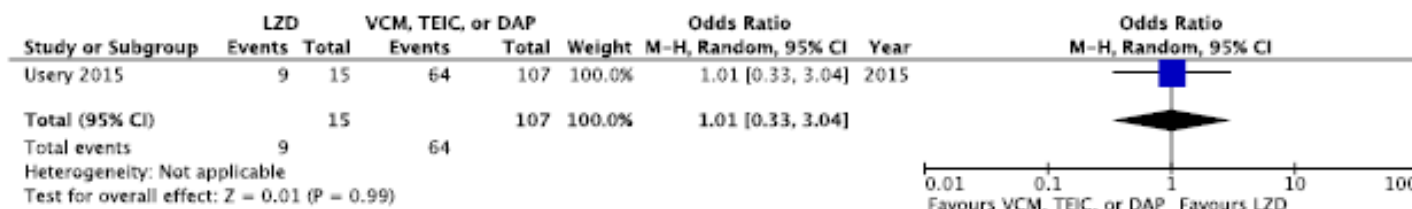
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(A)





(B)





Systematic Review

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- MRSA bakteriyemisinin tedavisinde linezolid, vankomisin, teikoplanin ve daptomisin ile benzer klinik etkinliğe sahiptir.
- İlk sıra seçenek olarak önerilir.

Infectious Diseases Society of America Guidance on the Treatment of Extended-Spectrum β -lactamase Producing Enterobacterales (ESBL-E), Carbapenem-Resistant Enterobacterales (CRE), and *Pseudomonas aeruginosa* with Difficult-to-Treat Resistance (DTR-*P. aeruginosa*)

Pranita D. Tamma,¹ Samuel L. Aitken,² Robert A. Bonomo,³ Amy J. Mathers,⁴ David van Duin,⁵ and Cornelius J. Clancy⁶

- IDSA sistematik derleme
- ESBL-E, CRE-E, DTR-*P. aeruginosa* ile enfekte hastalarda antibiyotik seçimi,

* DTR: TZP, sefepim, seftazidim, karbapenem, kinolon, aztreonam dirençli

Infectious Diseases Society of America Guidance on the Treatment of AmpC β -Lactamase–Producing Enterobacterales, Carbapenem-Resistant *Acinetobacter baumannii*, and *Stenotrophomonas maltophilia* Infections

Pranita D. Tamma,¹ Samuel L. Aitken,² Robert A. Bonomo,³ Amy J. Mathers,⁴ David van Duin,⁵ and Cornelius J. Clancy⁶

¹Department of Pediatrics, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA; ²Department of Pharmacy, University of Michigan Health, Ann Arbor, Michigan, USA; ³Medical Service, Louis Stokes Cleveland Department of Veterans Affairs Medical Center, University Hospitals Cleveland Medical Center and Departments of Medicine, Pharmacology, Molecular Biology, and Microbiology, Case Western Reserve University, Cleveland, Ohio, USA; ⁴Departments of Medicine and Pathology, University of Virginia, Charlottesville, Virginia, USA; ⁵Department of Medicine, University of North Carolina School of Medicine, Chapel Hill, North Carolina, USA; and ⁶Department of Medicine, University of Pittsburgh, Pittsburgh, Pennsylvania, USA

- AmpC β -laktamaz üreten Enterobacterales, karbapenem dirençli *Acinetobacter baumannii*, *Stenotrophomonas maltophilia* enfeksiyonları

Infectious Diseases Society of America 2023 Guidance on the Treatment of Antimicrobial Resistant Gram-Negative Infections

Pranita D. Tamma,^{1,✉} Samuel L. Aitken,² Robert A. Bonomo,³ Amy J. Mathers,^{4,5} David van Duin,⁶ and Cornelius J. Clancy⁷

¹Department of Pediatrics, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA; ²Department of Pharmacy, University of Michigan Health, Ann Arbor, Michigan, USA; ³Medical Service and Center for Antimicrobial Resistance and Epidemiology, Louis Stokes Cleveland Veterans Affairs Medical Center, University Hospitals Cleveland Medical Center and Departments of Medicine, Pharmacology, Molecular Biology, and Microbiology, Case Western Reserve University, Cleveland, Ohio, USA; ⁴Department of Medicine, University of Virginia, Charlottesville, Virginia, USA; ⁵Department of Pathology, University of Virginia, Charlottesville, Virginia, USA; ⁶Department of Medicine, University of North Carolina School of Medicine, Chapel Hill, North Carolina, USA; and ⁷Department of Medicine, University of Pittsburgh, Pittsburgh, Pennsylvania, USA

- ESBL-Enterobacterales, AmpC β -laktamaz Enterobacterales, CRE-Enterobacterales, DTR-*P. aeruginosa*, karbapenem dirençli *Acinetobacter baumannii*, *Stenotrophomonas maltophilia*

Infectious Diseases Society of America 2023 Guidance on the Treatment of Antimicrobial Resistant Gram-Negative Infections

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- “Etken tanımlanmış, antibiyotik duyarlılık profili saptanmış”
- ABD’deki tedavi seçenekleri
- Ampirik tedavi ya da tedavi sürelerine ilişkin spesifik öneriler yoktur.

Carbapenem use in extended-spectrum cephalosporin-resistant Enterobacterales infections in US hospitals and influence of IDSA guidance: a retrospective cohort study

Morgan K Walker, Guoqing Diao, Sarah Warner, Ahmed Babiker, Maniraj Neupane, Jeffrey R Strich, Christina Yek, Sameer S Kadri*, for the National Institutes of Health Antimicrobial Resistance Outcomes Research Initiative (NIH-ARORI)*

- 2018-2021, 168 hastane, 30041 hasta
- ESBL (+) Enterobacterales enfeksiyonları,

Carbapenem use in extended-spectrum cephalosporin-resistant Enterobacterales infections in US hospitals and influence of IDSA guidance: a retrospective cohort study

Morgan K Walker, Guoqing Diao, Sarah Warner, Ahmed Babiker, Maniraj Neupane, Jeffrey R Strich, Christina Yek, Sameer S Kadri*, for the National Institutes of Health Antimicrobial Resistance Outcomes Research Initiative (NIH-ARORI)*

- Ampirik karbapenem kullanımını %17,7
- Hedefe yönelik karbapenem kullanımını %58,3
 - Septik şok olmayan hastalarda %45,6
 - Septik şok olmayan üriner enf. %46,8

Carbapenem use in extended-spectrum cephalosporin-resistant Enterobacterales infections in US hospitals and influence of IDSA guidance: a retrospective cohort study

Morgan K Walker, Guoqing Diao, Sarah Warner, Ahmed Babiker, Maniraj Neupane, Jeffrey R Strich, Christina Yek, Sameer S Kadri*, for the National Institutes of Health Antimicrobial Resistance Outcomes Research Initiative (NIH-ARORI)*

- Karbapenem tedavisine geçiş, hastalık ciddiyetinden bağımsız olarak, ESBL raporlanan gün...
- ESBL (+) Enterobacterales enfeksiyonlarında karbapenemleri koruyan alternatifler için farkındalığın artırılması gerekir...

Impact of removing ESBL status labelling from culture reports on the use of carbapenems for non-bacteraemic patients diagnosed with ESBL-positive urinary tract infections

Lourdes R. Menendez Alvarado ^{1*}, Alice Margulis Landayan¹, Kelsey N. Williams¹, Corey M. Frederick¹, Zhenwei Zhang² and Timothy P. Gauthier¹

¹Pharmacy Department, Baptist Health South Florida, 1500 San Remo Ave, Miami, FL 33146, USA; ²Center for Advanced Analytics, Baptist Health South Florida, 1500 San Remo Ave, Miami, FL 33146, USA

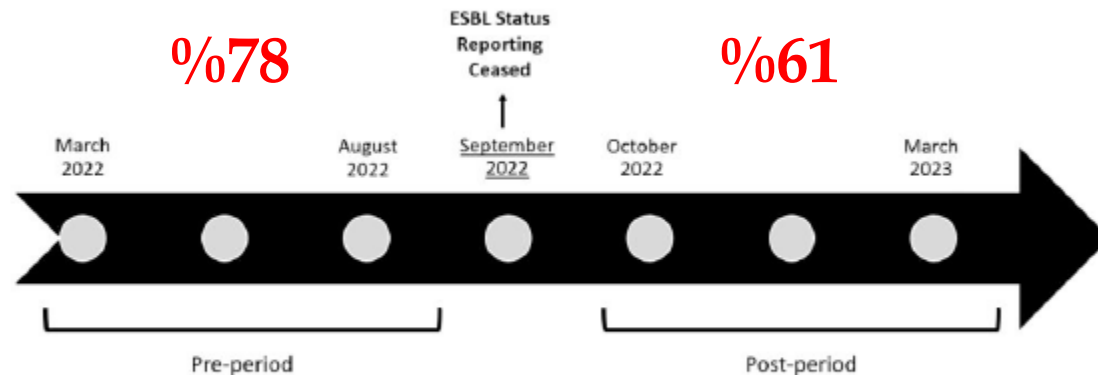


Figure 1. Change in ESBL reporting timeline.


Impact of removing ESBL status labelling from culture reports on the use of carbapenems for non-bacteraemic patients diagnosed with ESBL-positive urinary tract infections

Lourdes R. Menendez Alvarado ^{1*}, Alice Margulis Landayan¹, Kelsey N. Williams¹, Corey M. Frederick¹, Zhenwei Zhang² and Timothy P. Gauthier¹

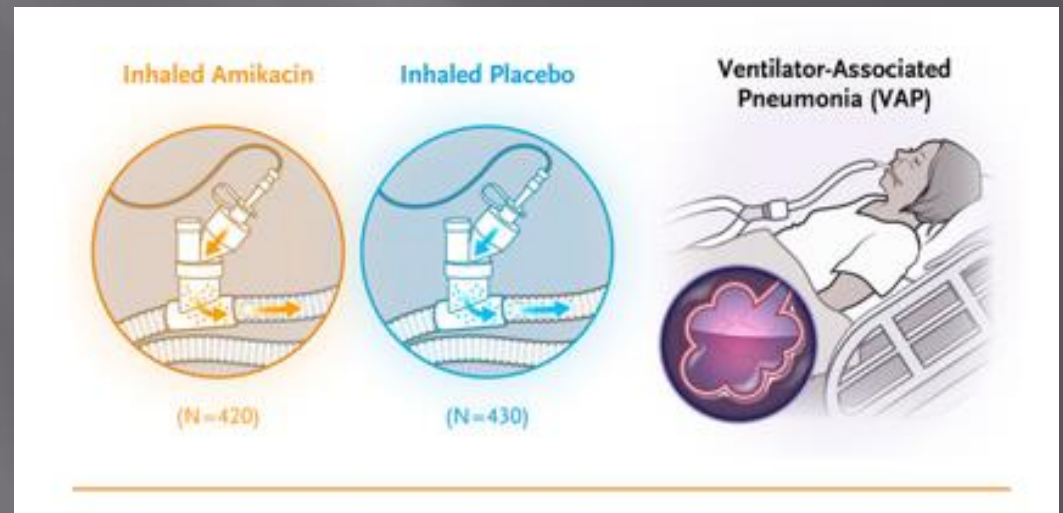
¹Pharmacy Department, Baptist Health South Florida, 1500 San Remo Ave, Miami, FL 33146, USA; ²Center for Advanced Analytics, Baptist Health South Florida, 1500 San Remo Ave, Miami, FL 33146, USA

- Laboratuvar sonuçlarından “ESBL” durumuna dair bildirim kaldırılması, klinik sonuçlar değişmeksizin, üriner enfeksiyonların tedavisinde karbapenem kullanımını %78’den %61’e indirdi ($p < 0,01$)

Inhaled Amikacin to Prevent Ventilator-Associated Pneumonia

Authors: Stephan Ehrmann, M.D., Ph.D. , François Barbier, M.D., Ph.D., Julien Demiselle, M.D., Jean-Pierre Quenot, M.D., Ph.D., Jean-Etienne Herbrecht, M.D., Damien Roux, M.D., Ph.D. , Jean-Claude Lacherade, M.D., , for the Reva and CRICS-TRIGGERSEP F-CRIN Research Networks* [Author Info & Affiliations](#)

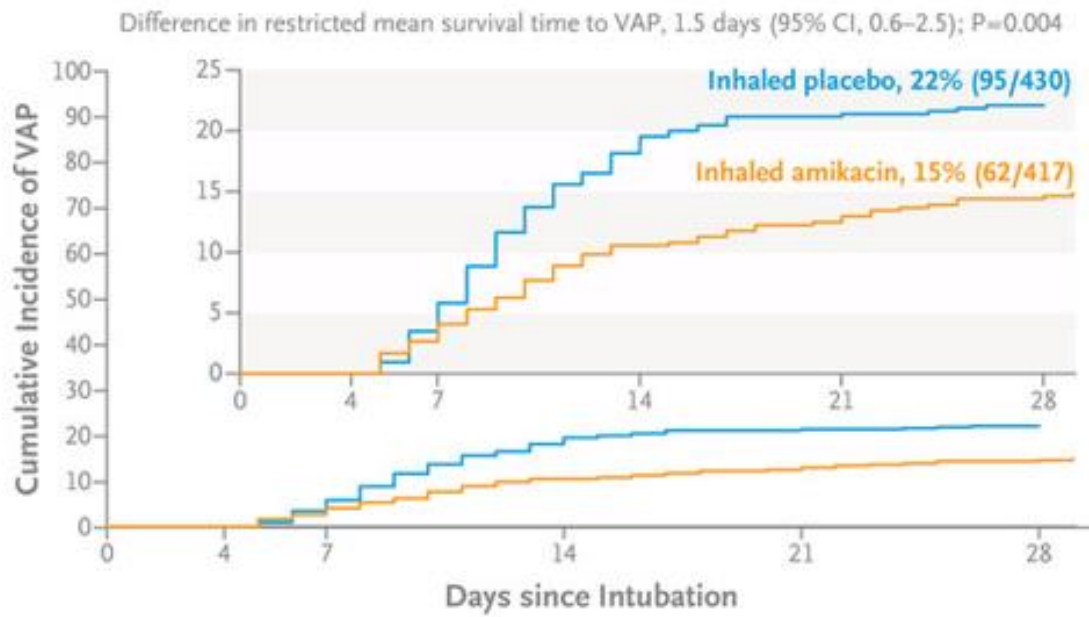
- >72 saat mekanik ventilasyonda kalan hastalarda 3 gün, 20 mg/kg/gün amikasin inhalasyonu
- 28. günde VIP



Inhaled Amikacin to Prevent Ventilator-Associated Pneumonia

Authors: Stephan Ehrmann, M.D., Ph.D. , François Barbier, M.D., Ph.D., Julien Demiselle, M.D., Jean-Pierre Quenot, M.D., Ph.D., Jean-Etienne Herbrecht, M.D., Damien Roux, M.D., Ph.D. , Jean-Claude Lacherade, M.D.,  +28, for the Reva and CRICS-TRIGGERSEP F-CRIN Research Networks* [Author Info & Affiliations](#)

Incidence of a First VAP Episode



Prophylactic Antibiotics Delivered Via the Respiratory Tract to Reduce Ventilator-Associated Pneumonia: A Systematic Review, Network Meta-Analysis, and Trial Sequential Analysis of Randomized Controlled Trials

- 7 RCT, n=1445
- >48 saat mekanik ventilasyonda kalan hastalarda respiratuvar yolla verilen profilaktik antibiyotikler, VAP riskini azaltır. (RR 0,69)
 - Aminoglikozidler (RR 0,67)
 - Nebulizasyon (RR 0,64)

Clinical Infectious Diseases

MAJOR ARTICLE

Association between infectious diseases consultation and mortality in hospitalized patients with Gram-negative bloodstream infection: a retrospective population-wide cohort study.

Sean W. X. Ong, MBBS^{1,2,3,4,*}; Jin Luo, MSc⁴; Daniel J. Fridman, MPH⁴; Samantha M. Lee,

- 53 hastane, 30159 gram negatif bakteriyemi
- Enfeksiyon hastalıkları konsültasyonu yapılan hastalarda 30 günlük mortalite daha düşük hastane enfeksiyonu, direnç, non-enterobacterales, üriner sistem dışı enfeksiyonlar

Centers for Disease Control and Prevention

MMWR

Morbidity and Mortality Weekly Report

Recommendations and Reports / Vol. 70 / No. 4

July 23, 2021

Sexually Transmitted Infections Treatment Guidelines, 2021

CDC Sexually Transmitted Infections Treatment Guidelines (2021)



Summary of Recommended Therapies in Adult Patients*

*Does not address special populations such as pregnant patients, pediatric patients, or patients with HIV

More clinical pearls at pyrls.com

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Acute Epididymitis

Ceftriaxone 500 mg IM x 1 dose, plus
Doxycycline 100 mg PO BID x 10 days
(for likely chlamydial/gonococcal infection)

Bacterial Vaginosis

Metronidazole 500 mg PO BID x 7 days

Cervicitis

Doxycycline 100 mg PO BID x 7 days
(empiric therapy for high-risk patients)

Chancroid

Azithromycin 1000 mg PO x 1 dose
or
Ceftriaxone 250 mg IM x 1 dose

Chlamydia

Doxycycline 100 mg PO BID x 7 days

Genital Herpes

Valacyclovir 1000 mg PO BID
for 7 - 10 days
(initial episode)

Granuloma Inguinale

Azithromycin 1000 mg PO weekly
(or 500 mg daily) for > 3 weeks
(until all lesions have healed)

HPV Anogenital Warts

Imiquimod 5% cream:
Apply at bedtime 3 nights per week
for < 16 weeks

Lymphogranuloma Venereum

Doxycycline 100 mg PO BID x 21 days

Mycoplasma Genitalium

Doxycycline 100 mg PO BID x 7 days then,
Moxifloxacin 400 mg PO QD x 7 days
(empiric therapy for when resistance testing not available)

Pediculosis Pubis

Permethrin 1% cream rinse:
Apply to affected area and wash off
after 10 minutes

Pelvic Inflammatory Disease

Ceftriaxone 500 mg IM x 1 dose, plus
Doxycycline 100mg PO BID x 14 days, plus
Metronidazole 500 mg PO BID x 14 days
(outpatient therapy)

Proctitis

Ceftriaxone 500 mg IM x 1 dose
plus
Doxycycline 100 mg PO BID x 7 days

Scabies

Permethrin 5% cream:
Apply to all areas of body from neck
down and wash off after 8-14 hrs

Syphilis

Benzathine penicillin G (Bicillin L-A®)
2.4 million units IM x 1 dose
(primary & secondary stages)

Trichomoniasis

Females: Metronidazole 500 mg
PO BID x 7 days
Males: Metronidazole 2 g PO x 1 dose

Uncomplicated Gonorrhea

Ceftriaxone 500 mg IM x 1 dose
*if chlamydia infection cannot be ruled out add
doxycycline 100 mg PO BID x 7 days*

Uncomplicated Vulvovaginal Candidiasis

OTC: Miconazole 1200 mg
vaginal suppository x 1 dose **or**
Rx: Fluconazole 150 mg PO x 1 dose

Urethritis

Doxycycline 100 mg PO BID x 7 days
(non-gonococcal)

Reference:
Workowski K, A., Bachmann L, H., Chan P, A.,
Johnston C, M., Muzny C, A., Park J, Reno H,
Zerilman J, M., & Bolan G, A. (2021). Sexually
transmitted infections treatment guidelines, 2021.
MMWR, Recommendations and Reports: Morbidity
and Mortality Weekly Report. Recommendations
and Reports, 70(4), 1-187.

Syphilis Treatment: Systematic Review and Meta-Analysis Investigating Nonpenicillin Therapeutic Strategies

Gustavo Yano Callado,^{1,6} Maria Celidonio Gutfreund,¹ Isabele Pardo,¹ Mariana Kim Hsieh,¹ Vivian Lin,¹ Mindy Marie Sampson,² Guillermo Rodriguez Nava,² Tássia Aporta Marins,³ Rodrigo Octávio Deliberato,^{4,5} Marinês Dalla Valle Martino,¹ Marisa Holubar,^{2,6} Jorge L. Salinas,² and Alexandre R. Marra^{1,6}

¹Faculdade Israelita de Ciências da Saúde Albert Einstein, Hospital Israelita Albert Einstein, São Paulo, São Paulo, Brazil, ²Division of Infectious Diseases & Geographic Medicine, Stanford University, Stanford, California, USA, ³Faculdade de Medicina, Centro Universitário de Adamantina, Adamantina, São Paulo, Brazil, ⁴Department of Biomedical Informatics, University of Cincinnati College of Medicine, Cincinnati, Ohio, USA, ⁵Biomedical Informatics Division, Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio, USA, and ⁶Department of Internal Medicine, University of Iowa Carver College of Medicine, Iowa City, Iowa, USA

- 27 çalışma, 6710 hasta
- Non nörolojik sfilisin yönetimi

Syphilis Treatment: Systematic Review and Meta-Analysis Investigating Nonpenicillin Therapeutic Strategies

Gustavo Yano Callado,^{1,6} Maria Celidonio Gutfreund,¹ Isabele Pardo,¹ Mariana Kim Hsieh,¹ Vivian Lin,¹ Mindy Marie Sampson,² Guillermo Rodriguez Nava,² Tássia Aporta Marins,³ Rodrigo Octávio Deliberato,^{4,5} Marinês Dalla Valle Martino,¹ Marisa Holubar,^{2,6} Jorge L. Salinas,² and Alexandre R. Marra^{1,6}

Syphilis Treatment: Systematic Review and Meta-Analysis Investigating Non-Penicillin Therapeutic Strategies

Open Forum Infectious Diseases



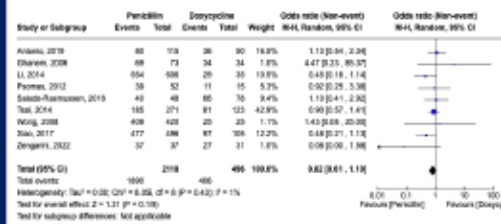
Systematic literature review and meta-analysis



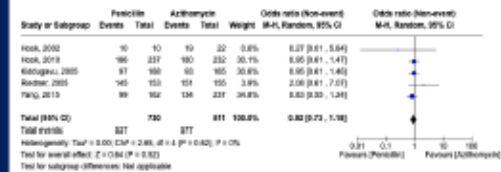
27 studies evaluating alternative drug strategies for non-neurological syphilis instead of penicillin

Alternative drug approaches, including **ceftriaxone, azithromycin, and doxycycline** monotherapies, demonstrate **equivalent serological cure rates** to benzathine penicillin G (BPG) in **non-neurological syphilis**, even among HIV-positive patients

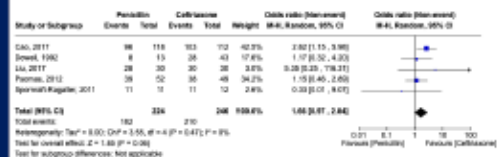
BPG vs. Doxycycline:



BPG vs. Azithromycin:



BPG vs. Ceftriaxone:



Symptoms of Neurosyphilis

Early Meningeal (usually within 12 months of infection)
Headache, photophobia, manifestations of cranial nerve palsies

Late Meningovascular
Cerebral stroke: depends on location of thrombosis (e.g., hemiparesis)
Spinal cord involvement: depends on location/extent (e.g., weakness, urinary incontinence)

Late Parenchymatous: General paresis
Early: Irritability, memory loss, personality changes, insomnia
Late: Impaired judgement, emotional lability

Late Parenchymatous: Tabes dorsalis
Ataxia, paresthesia, "lightning" pains (legs), "visceral crises" (episodic epigastric pain)

CNS Gummata
Variable symptoms depending on location of lesion

Ocular Syphilis
Vision loss, eye pain, floaters, flashing lights

Otic Syphilis
Hearing loss, dizziness, tinnitus, vertigo

Signs of Neurosyphilis

Early Meningeal
Meningismus, altered mental status, papilloedema, cranial nerve abnormalities; more rarely aphasia, hemiplegia

Late Meningovascular
Brain: Various signs of CVA depending on location; if in Spinal cord: Muscle atrophy, leg weakness and spasticity, hyperreflexia

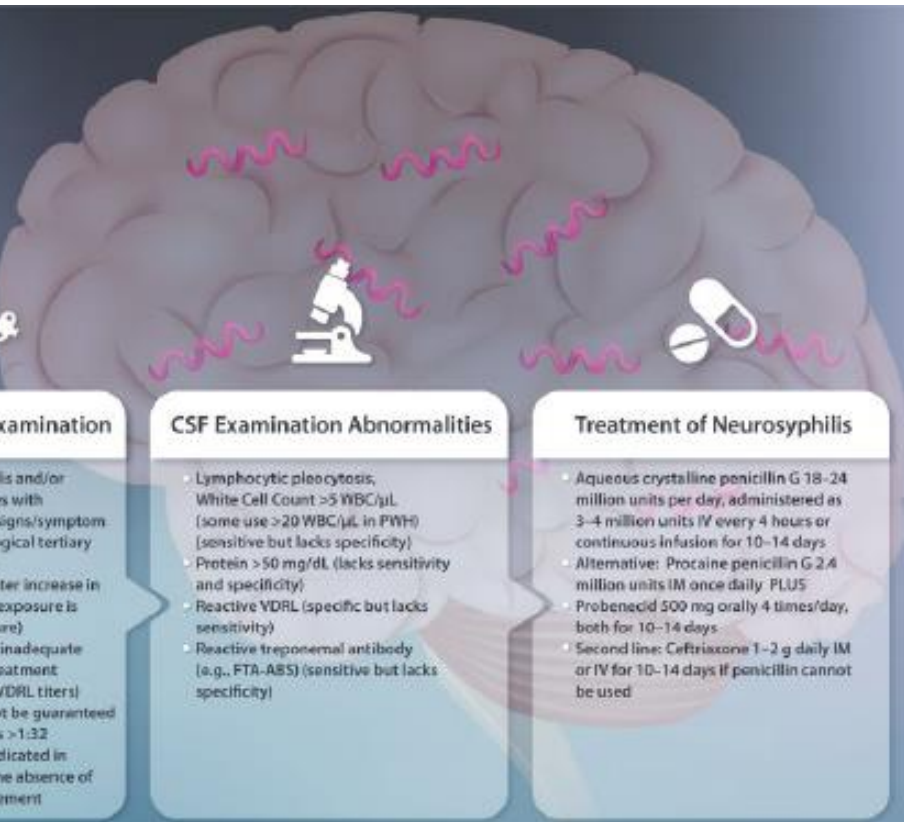
Late Parenchymatous: General paresis
Memory loss, disorientation, reflex abnormalities

Late Parenchymatous: Tabes dorsalis
Gait disturbances, diminished vibratory/position sense, absent deep tendon reflexes, positive Romberg, broad based or stomping gait, Charcot joints

CNS Gummata
Reflect space-occupying CNS lesion. Spinal cord: paraplegia, motor or sensory loss and urinary and fecal incontinence

Ocular Syphilis
Argyll Robertson pupil, decreased visual acuity, uveitis

Otic Syphilis
Gait instability, hearing loss



Indications for CSF examination

- Clinical evidence of syphilis and/or reactive syphilis serologies with compatible neurological signs/symptom
- Persons with non-neurological tertiary syphilis
- A sustained 4-fold or greater increase in RPR/VDRL titers when re-exposure is excluded (serological failure)
- Consider in the setting of inadequate serological response to treatment (<4-fold decrease in RPR/VDRL titers) if reliable follow up cannot be guaranteed or if post treatment titer is >1:32
- CSF examination is not indicated in ocular or otic syphilis in the absence of other neurological involvement

CSF Examination Abnormalities

- Lymphocytic pleocytosis, White Cell Count >5 WBC/ μ L (some use >20 WBC/ μ L in PWH) (sensitive but lacks specificity)
- Protein >50 mg/dL (lacks sensitivity and specificity)
- Reactive VDRL (specific but lacks sensitivity)
- Reactive treponemal antibody (e.g., FTA-ABS) (sensitive but lacks specificity)

Treatment of Neurosyphilis

- Aqueous crystalline penicillin G 18-24 million units per day, administered as 3-4 million units IV every 4 hours or continuous infusion for 10-14 days
- Alternative: Procaine penicillin G 2.4 million units IM once daily PLUS Probenecid 500 mg orally 4 times/day, both for 10-14 days
- Second line: Ceftriaxone 1-2 g daily IM or IV for 10-14 days if penicillin cannot be used



REMEMBER



Offer HIV testing and consider HIV PrEP in persons not infected with HIV who are diagnosed with syphilis

 | Clinical Microbiology | Full-Length Text

Could ceftriaxone be a viable alternative to penicillin for the treatment of ocular syphilis?

Xin Gu,¹ Haikong Lu,¹ Yilan Yang,¹ Lin Zhu,¹ Mei Shi,¹ Zhifang Guan,¹ Liyan Ni,¹ Ruirui Peng,¹ Wei Zhao,¹ Juan Wu,¹ Tengfei Qi,¹ Pingyu Zhou¹

- Oküler sfilisin tedavisinde
 - Seftriakson 2 gr gün/14 gün
 - Kristalize pen G 6x4 MU /14 gün
- Benzer teröpatik etkinlik...

At Long Last: Short, All-Oral Regimens for Multidrug-Resistant Tuberculosis in the United States

Pranay Sinha,¹ Karen R. Jacobson,¹ C. Robert Horsburgh Jr.,^{1,2,3,4} and Carlos Acuña-Villaorduña¹

¹Section of Infectious Diseases, Department of Medicine, Boston University Chobanian & Avedisian School of Medicine, Boston, Massachusetts, USA, ²Department of Epidemiology, Boston University School of Public Health, Boston, Massachusetts, USA, ³Department of Biostatistics, Boston University School of Public Health, Boston, Massachusetts, USA, and ⁴Department of Global Health, Boston University School of Public Health, Boston, Massachusetts, USA

Table 1. Definitions of Multidrug Resistance

| Condition | Definition |
|-----------------------------------|---|
| Drug-susceptible TB | <i>Mycobacterium tuberculosis</i> isolate susceptible to isoniazid and rifampin |
| Isoniazid monoresistance | <i>M tuberculosis</i> isolate resistant to isoniazid but not to rifampin |
| Rifampin monoresistance | <i>M tuberculosis</i> isolate resistant to rifampin but not to isoniazid |
| Multidrug-resistant TB | <i>M tuberculosis</i> isolate resistant to both isoniazid and rifampin |
| Pre-extensively drug-resistant TB | MDR plus resistance to fluoroquinolones (levofloxacin or moxifloxacin) |
| Extensively drug-resistant TB | MDR plus resistance to fluoroquinolones (levofloxacin and moxifloxacin) AND resistance to either bedaquiline or linezolid |

At Long Last: Short, All-Oral Regimens for Multidrug-Resistant Tuberculosis in the United States

Pranay Sinha,¹ Karen R. Jacobson,¹ C. Robert Horsburgh Jr.,^{1,2,3,4} and Carlos Acuña-Villaorduña¹

¹Section of Infectious Diseases, Department of Medicine, Boston University Chobanian & Avedisian School of Medicine, Boston, Massachusetts, USA, ²Department of Epidemiology, Boston University School of Public Health, Boston, Massachusetts, USA, ³Department of Biostatistics, Boston University School of Public Health, Boston, Massachusetts, USA, and ⁴Department of Global Health, Boston University School of Public Health, Boston, Massachusetts, USA



Drug susceptibility testing

- Whole genome sequencing to test for drug susceptibility
- Broth microdilution or MGIT testing for bedaquiline, linezolid, and pretomanid
- Test susceptibility to a fourth agent like clofazimine



Empiric drug regimen

- Bedaquiline 400 mg daily for 2 weeks THEN 200 mg three times weekly
- Pretomanid 200 mg daily
- Linezolid 600 mg daily
- Moxifloxacin 400 mg daily



Safety monitoring

- Electrocardiogram, complete blood count, and liver enzyme testing at baseline and during therapy.
- Monthly clinic visits to assess for peripheral neuropathy



Treatment duration

- Standard duration is 6 months
- Prolong to 9 months if
 - Bedaquiline or linezolid MIC ≥ 1 $\mu\text{g}/\text{mL}$
 - Sputum smear $\geq 3+$ AND/OR culture growth following > 8 weeks of therapy

Bedaquiline-pretomanid-moxifloxacin-pyrazinamide for drug-sensitive and drug-resistant pulmonary tuberculosis treatment: a phase 2c, open-label, multicentre, partially randomised controlled trial



Muge Cevik, Lindsay C Thompson, Caryn Upton, Valéria Cavalcanti Rolla, Mookho Malahleha, Blandina Mmbaga, Nosipho Ngubane, Zamzurina Abu Bakar, Mohammed Rassool, Ebrahim Variava, Rodney Dawson, Suzanne Staples, Umesh Laloo, Cheryl Louw, Francesca Conradie, Marika Eristavi, Anastasia Samoilova, Sergey N Skorniyakov, Niyanda Elias Ntinginya, Frederick Haraka, George Praygod, Harriett Mayanja-Kizza, Janice Caoili, Vincent Balanag, Margareth Pretti Dalcolmo, Timothy McHugh, Robert Hunt, Priya Solanki, Anna Bateson, Angela M Crook, Stella Fabiane, Juliano Timm, Eugene Sun, Melvin Spigelman, Derek J Sloan, Stephen H Gillespie, on behalf of SimpliciTB Consortium



- Bedaquiline, pretomanid, moxifloxacin, pirazinamid (BPamZ) 4 ay (n=150)
- Isoniazid, rifampisin, pirazinamid, etambutol (HRZE) 6 ay (n=153)

Bedaquiline-pretomanid-moxifloxacin-pyrazinamide for drug-sensitive and drug-resistant pulmonary tuberculosis treatment: a phase 2c, open-label, multicentre, partially randomised controlled trial



Muge Cevik, Lindsay C Thompson, Caryn Upton, Valéria Cavalcanti Rolla, Mookho Malahleha, Blandina Mmbaga, Nosipho Ngubane, Zamzurina Abu Bakar, Mohammed Rassool, Ebrahim Variava, Rodney Dawson, Suzanne Staples, Umesh Laloo, Cheryl Louw, Francesca Conradie, Marika Eristavi, Anastasia Samoilova, Sergey N Skorniyakov, Niyanda Elias Ntinginya, Frederick Haraka, George Praygod, Harriett Mayanja-Kizza, Janice Caoili, Vincent Balanag, Margareth Pretti Dalcolmo, Timothy McHugh, Robert Hunt, Priya Solanki, Anna Bateson, Angela M Crook, Stella Fabiane, Juliano Timm, Eugene Sun, Melvin Spigelman, Derek J Sloan, Stephen H Gillespie, on behalf of SimpliciTB Consortium



- 8. hafta balgam kültürü negatifliği
- BPaMZ %84 vs. HRZE %47 ($p < 0,0001$)
- Hepatik advers olaylar nedeniyle BPaMZ daha fazla kesilmek zorunda kalmış

Clinical Infectious Diseases

GUIDELINES

NTCA Guidelines for Respiratory Isolation and Restrictions to Reduce Transmission of Pulmonary Tuberculosis in Community Settings

Maunank Shah MD PhD¹, Zoe Dansky¹, Ruvandhi Nathavitharana², Heidi Behm³, Shaka Brown⁴, Lana Dov⁵, Diana Fortune⁶, Nicole Linda Gadon⁴, Katelynne Gardner Toren⁷, Susannah Graves⁸, Connie A. Haley⁹, Olivia Kates^{1,10}, Nadya Sabuwala¹¹, Donna Wegener¹², Kathryn Yoo¹³, Joseph Burzynski¹⁴ on Behalf of the National TB Coalition of America

- Amerika Ulusal Tüberküloz Koalisyonu
- Toplumda tbc bulaşının önlenmesi için solunum izolasyonu ve kısıtlamalar için kılavuz

GUIDELINES

NTCA Guidelines for Respiratory Isolation and Restrictions to Reduce Transmission of Pulmonary Tuberculosis in Community Settings

Maunank Shah MD PhD¹, Zoe Dansky¹, Ruvandhi Nathavitharana², Heidi Behm³, Shaka Brown⁴, Lana Dov⁵, Diana Fortune⁶, Nicole Linda Gadon⁴, Katelynne Gardner Toren⁷, Susannah Graves⁸, Connie A. Haley⁹, Olivia Kates^{1,10}, Nadya Sabuwala¹¹, Donna Wegener

| | |
|---|---|
| <p><i>Recommendation 3: Determining Infectiousness and transmission risk</i></p> <p><i>(Figure 1)</i></p> | <p>3.1 Prior to effective¹ ATT initiation, PWTB with higher respiratory bacterial burden (i.e., sputum smear and/or NAAT positivity, cavitation on chest imaging) may be considered as relatively more infectious than those with lower bacterial burden, with individual variability.</p> |
| | <p>3.2 PWTB on less than five days of effective ATT should be considered relatively more infectious than those on longer durations of effective¹ therapy.</p> |
| | <p>3.3 PWTB on effective¹ ATT for at least five days should be considered non-infectious or as low likelihood of infectiousness, regardless of sputum bacteriologic status during ongoing ATT (i.e., smear-microscopy or culture status), with certain exceptions².</p> |
| | <p>3.4 Overall risk of transmission to others should consider both a PWTB's</p> |

SYNOPSIS

Crimean Congo-Hemorrhagic Fever Virus for Clinicians—Virology,

SYNOPSIS

Crimean-Congo Hemorrhagic Fever Virus for Clinicians—

SYNOPSIS

Crimean-Congo Hemorrhagic Fever Virus for Clinicians— Diagnosis, Clinical Management, and Therapeutics

Maria G. Frank, Gretchen Weaver, Vanessa Raabe;¹ State of the Clinical Science Working Group of the National Emerging Pathogens Training and Education Center's Special Pathogens Research Network²

Frank MG et al. Emerg Infect Dis 2024;30:847

Frank MG et al. Emerg Infect Dis 2024;30:854

Frank MG et al. Emerg Infect Dis 2024;30:864



HHS Public Access

Author manuscript

N Engl J Med. Author manuscript; available in PMC 2024 February 24.

Published in final edited form as:

N Engl J Med. 2023 August 24; 389(8): 687–699. doi:10.1056/NEJMoa2304146.

Pitavastatin to Prevent Cardiovascular Disease in HIV Infection

Steven K. Grinspoon, M.D.,

Metabolism Unit, Massachusetts General Hospital and Harvard Medical School, Boston, MA,
USA

- Faz 3, n=7769
- Pitavastatin 4 mg vs plasebo
- Major advers kardiovasküler olay ,
Pitavastatin grubu 4,81/1000
Plasebo grubu 7,32/1000
(HR, 0;65; 95% CI 0,48 – 0,90; P = 0.002).

Clinical Infectious Diseases

BRIEF REPORT

Bictegravir use during pregnancy: a multi-center retrospective analysis evaluating HIV viral suppression and perinatal outcomes

Lauren M Holt¹, William R Short², Florence Momplaisir³, Eleanor Hyun⁴, Jennifer McKinney⁵, Andrea Lugo Morales⁶, Alejandra Duque⁷, Brian Druyan⁸, Chima Ndubizu⁹, Luthita Duthely¹⁰, Naima Joseph¹¹, Anandi Sheth¹², Martina L. Badell¹³

- Bictegravirin gebelikte kullanıldığı en büyük kohort (n=147)

April 26, 2024

FDA Approves Biktarvy® Label Update With Data for Pregnant Adults With HIV

– Additional Data in Pregnant Adults Who Are Virologically Suppressed Reinforce Safety and Tolerability Profile of Biktarvy in Broad Range of People With HIV –

Long-Acting Cabotegravir and Rilpivirine Dosed Every 2 Months in Adults With Human Immunodeficiency Virus 1 Type 1 Infection: 152-Week Results From ATLAS-2M, a Randomized, Open-Label, Phase 3b, Noninferiority Study

Edgar T. Overton,^{1,a} Gary Richmond,² Giuliano Rizzardini,^{3,4} Anders Thalmé,⁵ Pierre-Marie Girard,⁶ Alexander Wong,⁷ Norma Porteiro,⁸ Susan Swindells,⁹ Jacques Reynes,^{10,11} Sebastian Noe,¹² Conn Harrington,¹³ Carlos Martín Español,¹⁴ Carolina Acupil,¹⁵ Asma Aksar,¹⁶ Yuanyuan Wang,¹⁷ Susan L. Ford,¹⁸ Herta Crauwels,¹⁹ Veerle van Eygen,²⁰ Rodica Van Solingen-Ristea,²¹ Christine L. Latham,²² Shanker Thiagarajah,²³ Ronald D'Amico,¹⁵ Kimberly Y. Smith,¹⁵ Kati Vandermeulen,²⁴ and William R. Spreen¹⁵

- Antiretroviral Therapy Long- Acting Suppression (ATLAS)-2M, 152. hafta
- n=1045
- CAB+RPV LA (Q8W, n=522; Q4W, n=523)

IMMUNE REGULATION

The circadian immune system

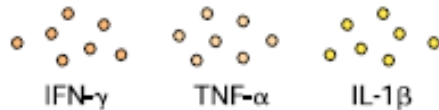
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Morning vaccination

BCG (8 a.m.)

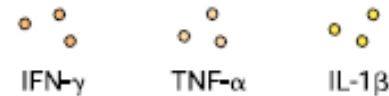
- Strong nonspecific trained immunity
- High cytokine secretion



Afternoon/evening vaccination

BCG (6 p.m.)

- No trained immunity
- Lower cytokine secretion



Influenza (9–11 a.m.)

- Higher antibody response



Influenza (3–5 p.m.)

- Lower antibody response



SARS-CoV-2 (9–11 a.m.)

- Higher neutralizing antibody levels
- Stronger B and T_h cell response
- Higher percentage of monocytes and DCs
- Higher percentage of memory B cells



SARS-CoV-2 (3–5 p.m.)

- Lower neutralizing antibody levels
- Lower B and T_h cell response
- Lower percentage of monocytes and DCs
- Lower percentage of memory B cells



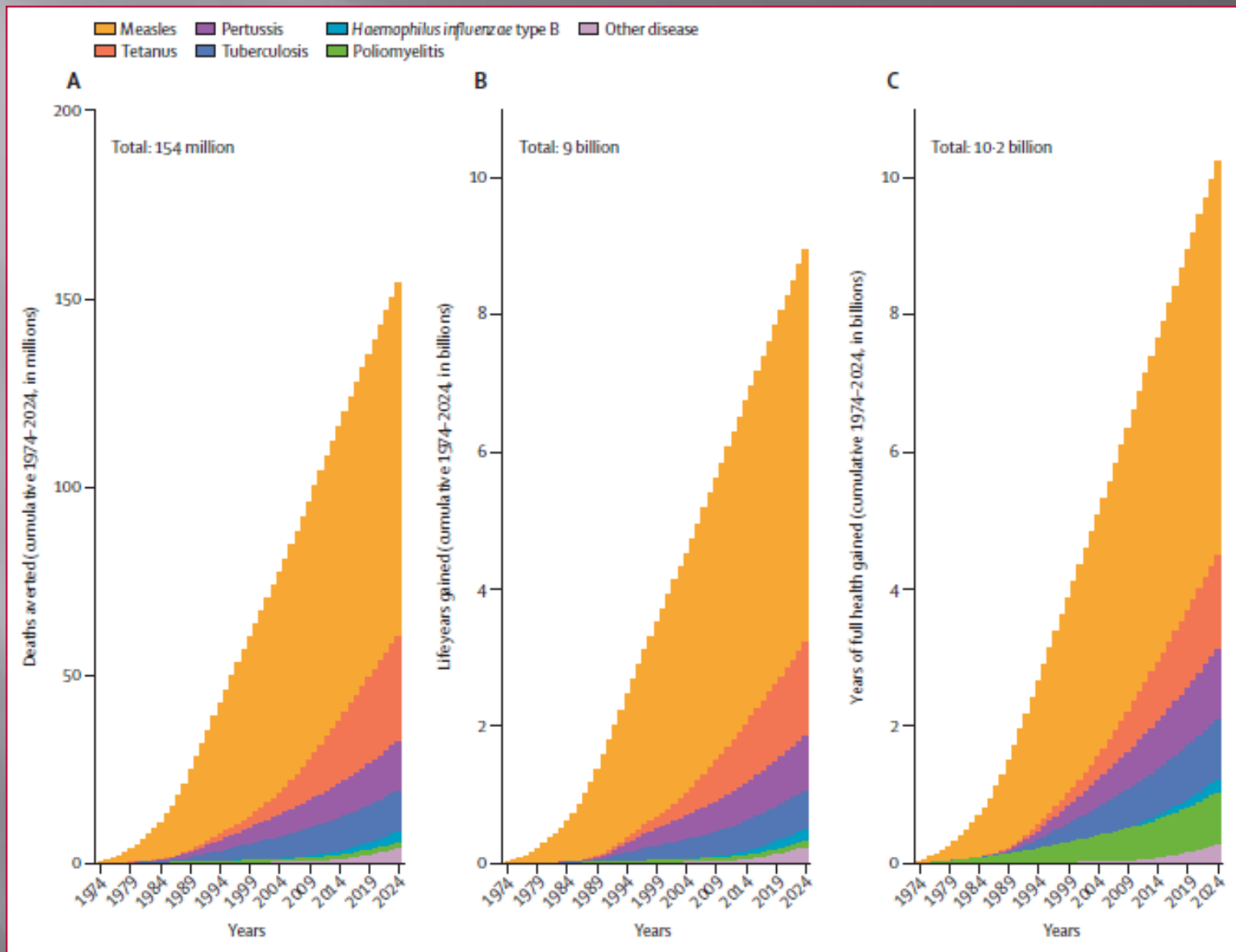
Contribution of vaccination to improved survival and health: modelling 50 years of the Expanded Programme on Immunization



Andrew J Shattock, Helen C Johnson, So Yoon Sim, Austin Carter, Philipp Lambach, Raymond CW Hutubessy, Kimberly M Thompson, Kamran Badizadegan, Brian Lambert, Matthew J Ferrari, Mark Jit, Han Fu, Sheetal P Silal, Rachel A Hounsell, Richard G White, Jonathan F Mosser, Katy A M Gaythorpe, Caroline L Trotter, Ann Lindstrand, Katherine L O'Brien, Naor Bar-Zeev



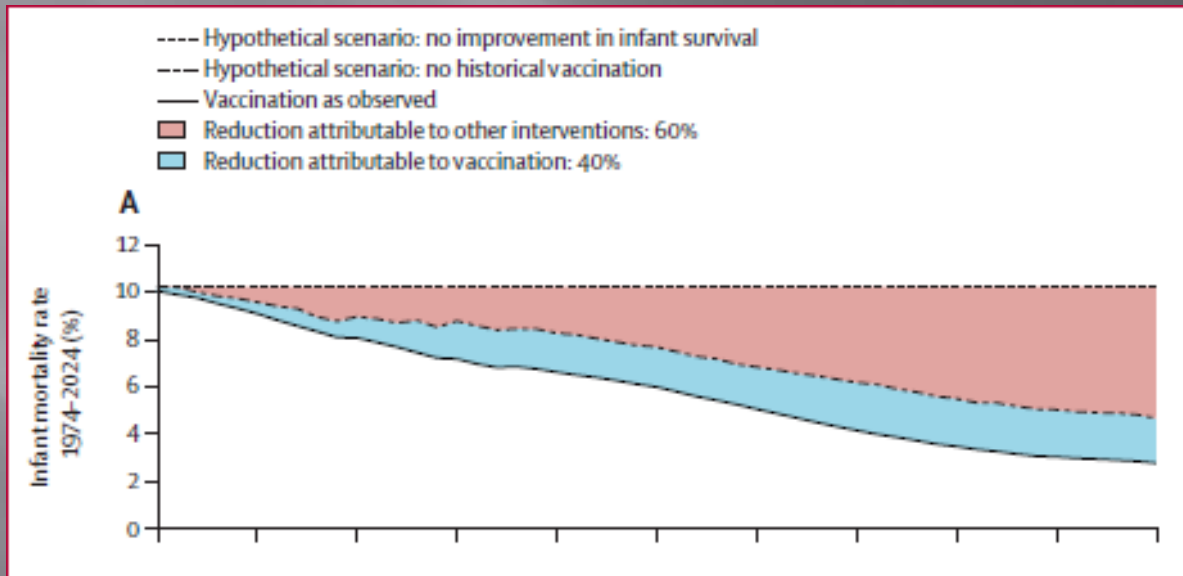
- DSÖ Genişlemiş Bağışıklama Programı, 1974















Contribution of vaccination to improved survival and health: modelling 50 years of the Expanded Programme on Immunization



Andrew J Shattock, Helen C Johnson, So Yoon Sim, Austin Carter, Philipp Lambach, Raymond CW Hutubessy, Kimberly M Thompson, Kamran Badizadegan, Brian Lambert, Matthew J Ferrari, Mark Jit, Han Fu, Sheetal P Silal, Rachel A Hounsell, Richard G White, Jonathan F Mosser, Katy A M Gaythorpe, Caroline L Trotter, Ann Lindstrand, Katherine L O'Brien, Naor Bar-Zeev



Vaccination of Adults With Cancer: ASCO Guideline

Mini Kamboj, MD¹; Kari Bohlke, ScD² ; Deana M. Baptiste, PhD, MPH³; Kieron Dunleavy, MD⁴; Abbey Fueger, BA, BSN, RN⁵; Lee Jones, MBA⁶ ; Amar H. Kelkar, MD, MPH⁷ ; Lisa Y. Law, MD⁸ ; Kristine B. LeFebvre, DNP, RN, NPD-BC, AOCN⁹ ; Per Ljungman, MD, PhD¹⁰ ; Eric D. Miller, MD, PhD¹¹ ; Larissa A. Meyer, MD, MPH¹² ; Heather N. Moore, CPP, PharmD¹³ ; Heloisa P. Soares, MD, PhD¹⁴ ; Randy A. Taplitz, MD¹⁵ ; Edom S. Woldetsadik, MD¹⁶ ; and Elise C. Kohn, MD¹⁷

DOI <https://doi.org/10.1200/JCO.2024.00032>






TABLE 3. Recommendations for Other Vaccines That May be Indicated for Adults With Cancer and Coexisting Health Conditions

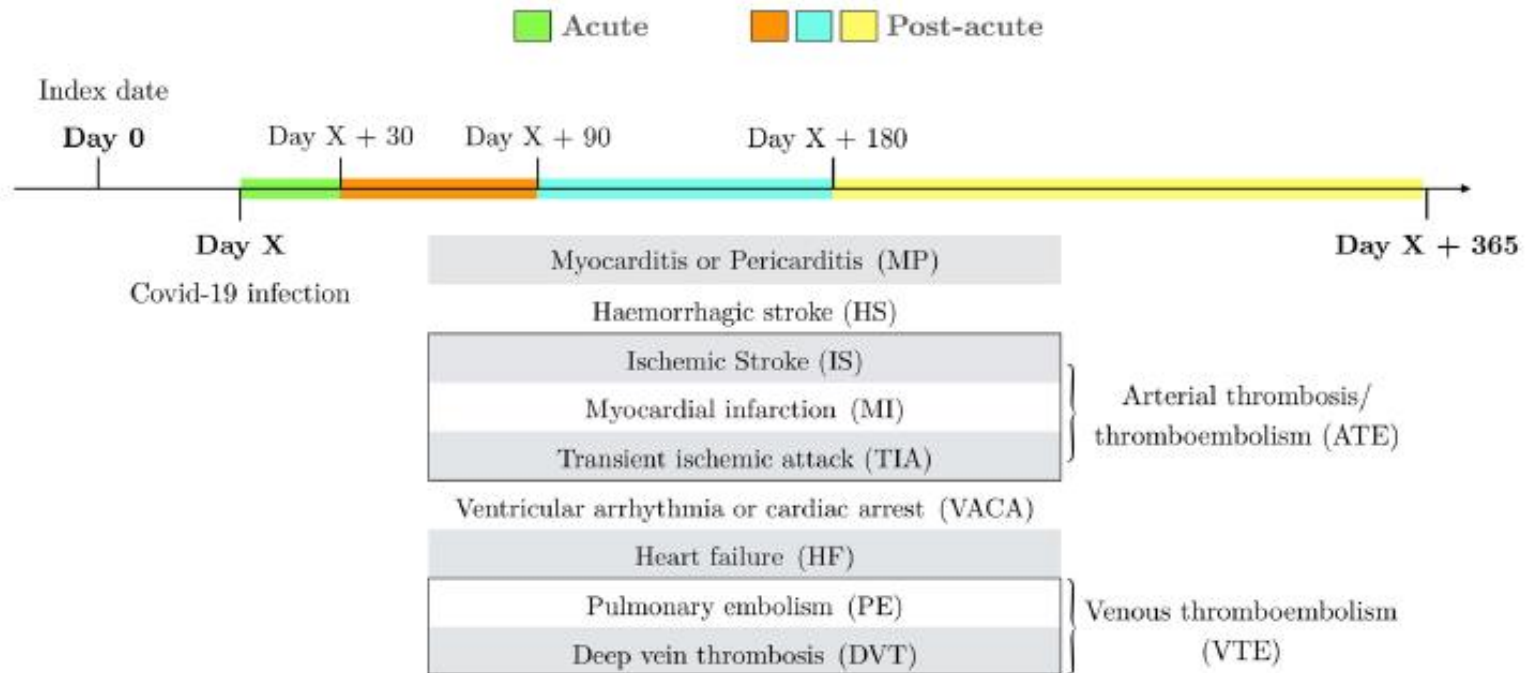
| Vaccine | Type | Other Risk Factor | Recommendation |
|---|------------------------------|--|---|
| Haemophilus influenzae type b vaccination (Hib) | Nonlive | Anatomic asplenia | For elective splenectomy: one dose at least 14 days before splenectomy (preferred) |
| | | Functional asplenia | One dose if previously did not receive Hib |
| Hepatitis A vaccination | Nonlive | Chronic liver disease, HIV, MSM, homelessness, injection or noninjection drug use, occupational exposure, travel | Two-dose series HepA or three-dose series HepA-HepB |
| Meningococcal vaccination ^a | Men ACWY (nonlive) | Anatomic or functional asplenia, complement component deficiency, complement inhibitor (eg, eculizumab, ravulizumab), Travel, Occupational, Military recruits, Residential living for college students | Two-dose series MenACWY-D Frequency: 8 weeks apart Revaccinate every 5 years if risk remains |
| | Men B (nonlive) | Anatomic or functional asplenia (including sickle cell disease), persistent complement component deficiency, complement inhibitor (eg, eculizumab, ravulizumab) use, occupational (microbiologists), pregnancy, MSM outbreak setting | Two-dose primary series MenB-4C at least 1 month apart Or three-dose primary series MenB-FHbp at 0, 1-2, 6 months Revaccinate every 2-3 years if risk remains |
| IPV | Nonlive | Travel Community risk (eg, wastewater detection of vDPV) | Single booster |
| MMR | Live | No evidence of immunity: HIV (CD4 >200 for 6 months), HCP, outbreak setting, travel | Contraindicated with cancer treatment and other immunocompromising conditions |
| Varicella | Live | Postexposure | Contraindicated with cancer treatment and other immunocompromising conditions |
| MVA (Monkeypox) | Live (replication-deficient) | Postexposure, Occupational exposure (laboratory worker), high risk | Safe to administer in persons with HIV or those on immunosuppressive therapies |
| Monkeypox and smallpox (ACAM2000) | Live | | Contraindicated with cancer treatment and other immunocompromising conditions |



Original research

The role of COVID-19 vaccines in preventing post-COVID-19 thromboembolic and cardiovascular complications

Núria Mercadé-Besora,^{1,2,3} Xintong Li,¹ Raivo Kolde,⁴ Nhung TH Trinh,⁵ Maria T Sanchez-Santos,¹ Wai Yi Man,¹ Elena Roel,³ Carlen Reyes,³ Antonella Delmestri ,¹ Hedvig M E Nordeng,^{6,7} Anneli Uusküla ,⁸ Talita Duarte-Salles ,^{3,9} Clara Prats,² Daniel Prieto-Alhambra ,^{1,9} Annika M Jödicke ,¹ Martí Català¹

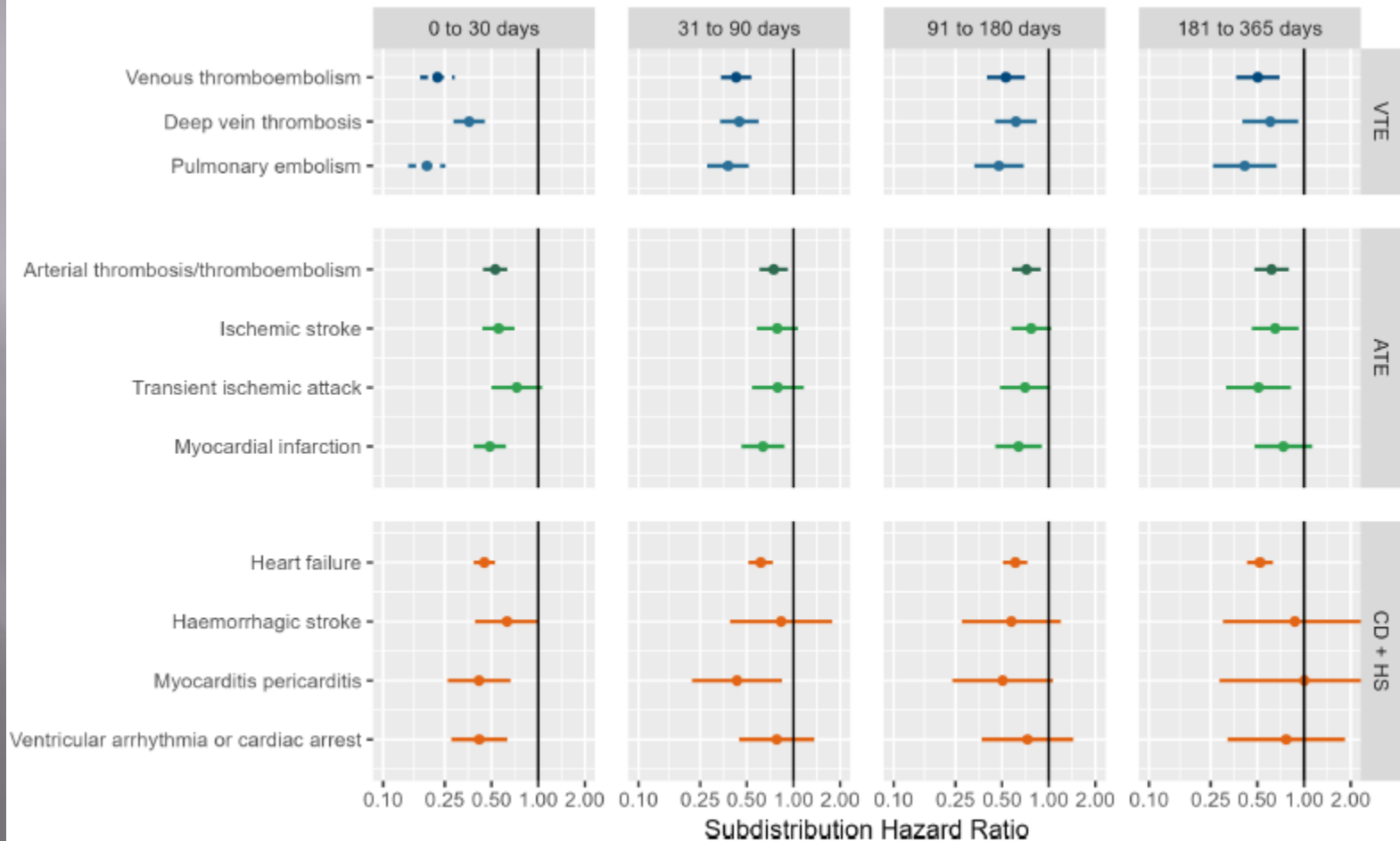




Original research

The role of COVID-19 vaccines in preventing post-COVID-19 thromboembolic and cardiovascular complications






Núria Mercadé-Rosca^{1,2,3} Xintong Li¹ Raivo Kolde⁴ Nhung TH Trinh⁵





Original research







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- Covid-19 aşıları, covid sonrası gelişebilen kardiyak ve tromboembolik olay riskini düşürmüştür.



Incidence, risk factors and outcomes of nosocomial infection in adult patients supported by extracorporeal membrane oxygenation: a systematic review and meta-analysis

Ali Ait Hssain^{1,2,3}, Amir Vahedian-Azimi^{4*}, Abdulsalam Saif Ibrahim^{1,2}, Ibrahim Fawzy Hassan^{1,2}, Elie Azoulay⁵ and Michael Darmon⁵

- 30 çalışma, n=4733
- SHİE insidansı %26
- SHİE gelişmesi hastane mortalitesi riskini %37 artırıyor

Open Forum Infectious Diseases

REVIEW ARTICLE

Antifungals in Patients with Extracorporeal Membrane Oxygenation: Clinical Implications

L Kriegl^{1,3}, S Hatzl^{2,3}, G Schilcher⁴, I Zollner-Schwetz¹, J Boyer¹, C Geiger¹, M Hönigl^{1,3}, R Krause^{1,3}

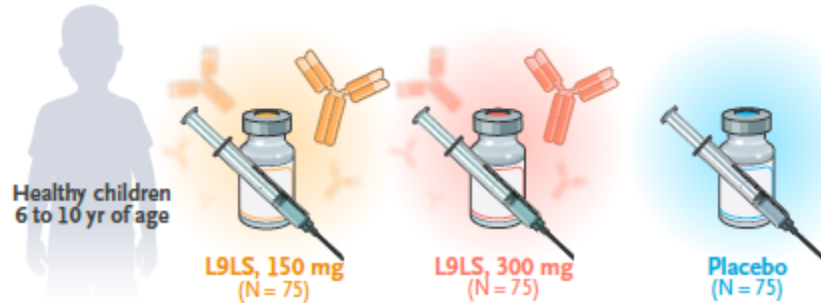
- ECMO ile izlenen hastada IFD gelişmesi halinde mortalite %82
- ECMO devreleri nedeniyle ekinokandinler ve LAmB düzeyleri değişir

Subcutaneous Administration of a Monoclonal Antibody to Prevent Malaria

Kayentao K et al. DOI: 10.1056/NEJMoa2312775

CLINICAL PROBLEM

Plasmodium falciparum causes >600,000 malaria deaths annually, mostly among children in Africa. Whether the human IgG1 monoclonal antibody L9LS, administered subcutaneously, can protect children from *P. falciparum* infection in a region where the organism is endemic is unclear.



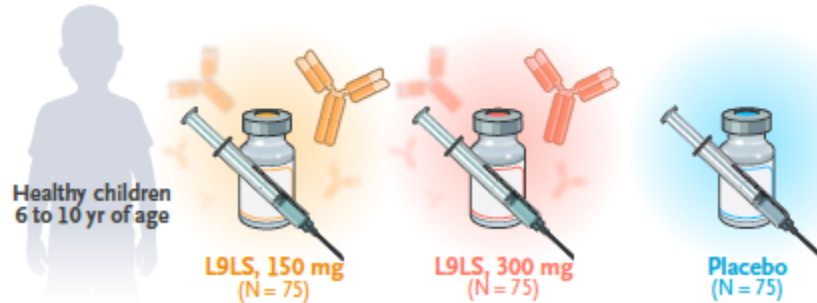
- RCT, faz 2 çalışma
- Monoklonal antikor L9LS
- 225 çocuk (6-10 yaş), 24 hafta takip

Subcutaneous Administration of a Monoclonal Antibody to Prevent Malaria

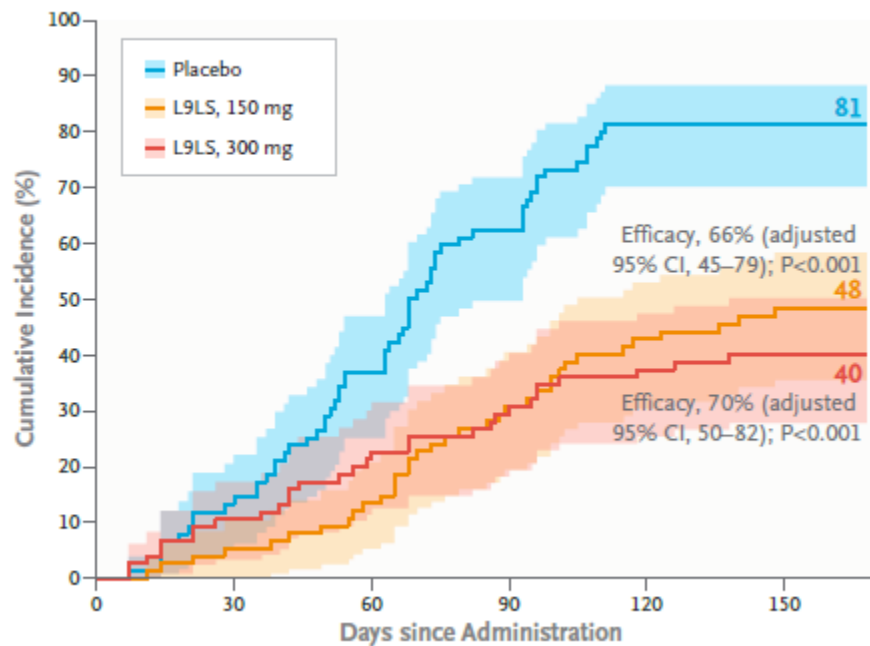
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P. falciparum Infection with Onset between Weeks 1 and 24



Impact of climate change and natural disasters on fungal infections

Danila Seidel, Sebastian Wurster*, Jeffrey D Jenks*, Hatim Sati, Jean-Pierre Gangneux, Matthias Egger, Ana Alastruey-Izquierdo, Nathan P Ford, Anuradha Chowdhary, Rosanne Sprute, Oliver Cornely, George R Thompson III, Martin Hoening†, Dimitrios P Kontoyiannis†*

The effects of climate change and natural disasters on fungal pathogens and the risks for fungal diseases remain incompletely understood. In this literature review, we examined how fungi are adapting to an increase in the Earth's temperature and are becoming more thermotolerant, which is enhancing fungal fitness and virulence. Climate change is creating conditions conducive to the emergence of new fungal pathogens and is priming fungi to adapt to previously inhospitable environments, such as polluted habitats and urban areas, leading to the geographical spread of some fungi to traditionally non-endemic areas. Climate change is also contributing to increases in the frequency and severity of natural disasters, which can trigger outbreaks of fungal diseases and increase the spread of fungal pathogens. The populations mostly affected are the socially vulnerable. More awareness, research, funding, and policies on the part of key stakeholders are needed to mitigate the effects of climate change and disaster-related fungal diseases.

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



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

- Rezafungin, yeni nesil ekinokandin
- Rezafungin 400 mg yükleme, 200 mg/hafta
- Caspofungin 70 mg yükleme, 50 mg/gün
- n=199

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



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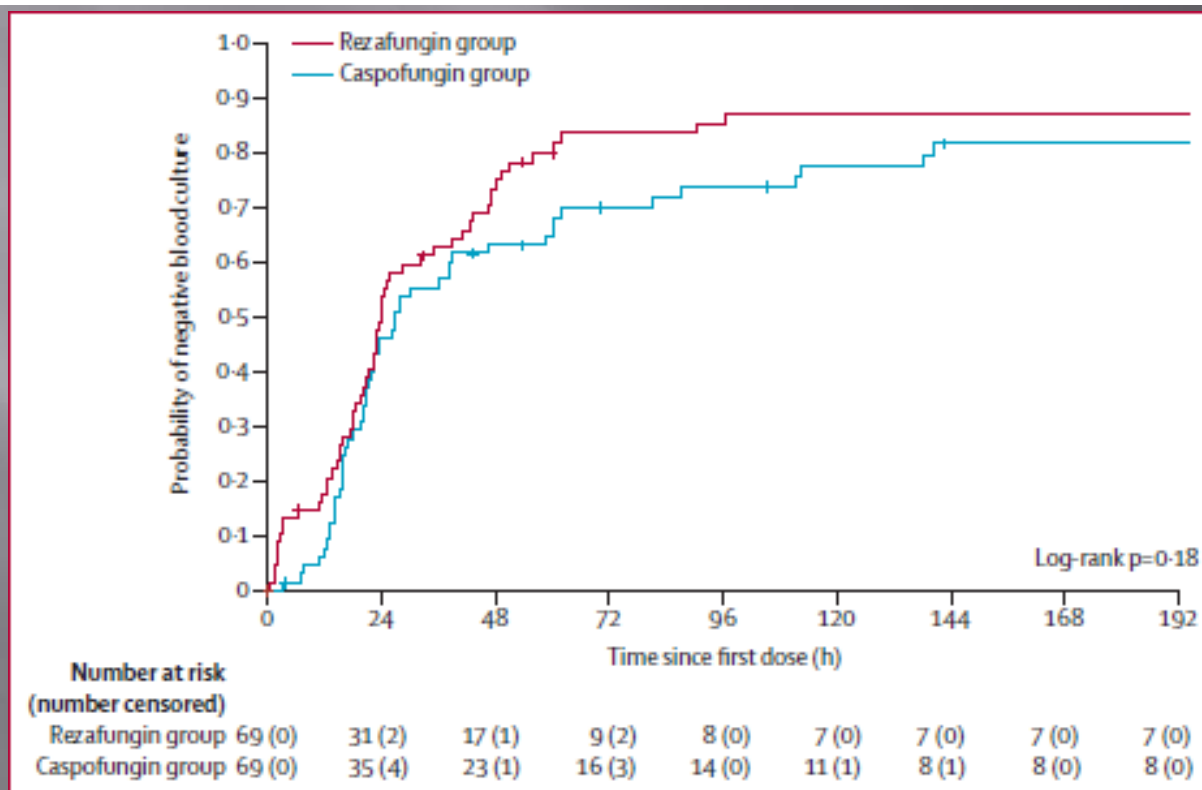


Figure 2: Time to negative blood culture after treatment with rezafungin versus caspofungin in the modified intention-to-treat population *et al. Lancet 2023;401:49*

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

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

¹Department of Medicine, University of Minnesota, Minneapolis, Minnesota, USA; ²Infectious Diseases Institute, Makerere University, Kampala, Uganda; ³Laboratory of Clinical Immunology and Microbiology, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Maryland, USA; ⁴Department of Medicine, Mbarara University of Science and Technology, Mbarara, Uganda; ⁵Matinas Biopharma Nanotechnologies, Bedminster, New Jersey, USA; and ⁶Division of Biostatistics, School of Public Health, University of Minnesota, Minneapolis, Minnesota, USA

- Oral lipid nanokristal (LNC) amfoterisin B (MAT2203)
- RCT LNC amfoterisin + flusitozin (n=40)
- 2 IV + LNC amfoterisin + flusitozin (n=40)
- IV amfoterisin + flusitozin (n=41)

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

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¹Department of Medicine, University of Minnesota, Minneapolis, Minnesota, USA; ²Infectious Diseases Institute, Makerere University, Kampala, Uganda; ³Laboratory of Clinical Immunology and Microbiology, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Maryland, USA; ⁴Department of Medicine, Mbarara University of Science and Technology, Mbarara, Uganda; ⁵Matinas Biopharma Nanotechnologies, Bedminster, New Jersey, USA; and ⁶Division of Biostatistics, School of Public Health, University of Minnesota, Minneapolis, Minnesota, USA

➤ 18. hafta sağkalım

LNC amfoterisin + flusitozin %85

2 IV+LNC amfoterisin + flusitozin %90

IV amfoterisin + flusitozin %85



