

KASIC NEWSLETTER

Issue Nine, Volume Four

*Pictured Top: Berea, KY
Attribution to worldatlas.com*



Single dose fosfomycin: Is it too good to be true?

A recent randomized controlled trial compared treatment options for uncomplicated lower UTIs in adult women. The study compared fosfomycin 3 g orally once, fosfomycin 3 g orally every 24 hours for two doses, nitrofurantoin 100 mg three times daily for five days, and pivmecillinam 400 mg orally three times daily for three days. 768 patients were included in the study, with a median age of 48 years. The primary endpoint was clinical resolution at day 7 and results were as follows:

- Nitrofurantoin: 74%
- Pivmecillinam: 70%
- Fosfomycin x2: 67%
- Fosfomycin x1: 59%

The difference between nitrofurantoin and single-dose fosfomycin was found to be statistically significant at 15.5% (95% CI 5.9-25.1), $p=0.0168$. Overall, adverse events were similar between the groups, mainly consisting of gastrointestinal side effects.

This study calls into question the place in therapy for single-dose fosfomycin in treatment of uncomplicated UTIs in adult women, while underscoring more favorable clinical outcomes with nitrofurantoin. While a single-dose fosfomycin course is convenient for patients with uncomplicated UTIs, the poor clinical efficacy of the regimen should limit its use as a first-line therapy.

[Click here to read the trial!](#)



Cefepime-zidebactam (ZAYNICH)

A new β -lactam/ β -lactamase inhibitor antibiotic was approved for the treatment of complicated UTIs or pyelonephritis caused by susceptible gram-negative pathogens: *E. coli*, *Klebsiella pneumoniae*, *Proteus mirabilis*, *Enterobacter cloacae*, and *Pseudomonas aeruginosa*. It retains activity in vitro against pathogens with various resistance mechanisms including carbapenemases such as metallo-beta lactamases. The approval was based, in part, on the efficacy demonstrated in the ENHANCE-1 phase 3 trial in which it was compared against meropenem. Standard dosing for cefepime-zidebactam is 3 g IV every 8 hours for 7-10 days.

Cefepime-zidebactam is a new option for patients with resistant, difficult to treat infections that are not susceptible to preferred therapies.

[Click here to read the press!](#)



KASIC Cases

Each week, a fictional case describing a common antimicrobial stewardship opportunity is posted on X (formerly Twitter) and LinkedIn. Participants are encouraged to answer the poll first and then review the best answer along with an explanation.

Ready to test your antimicrobial stewardship knowledge?

Try out the latest case:

A 45-year-old male with an unremarkable past medical history is started on empiric ceftriaxone monotherapy for suspected cholecystitis. Should metronidazole be added?

- A. Yes
- B. No

[Click here for the BEST answer](#)

[Read more cases here](#)

[Follow KASIC on Twitter & LinkedIn](#)

Candidemia Nationwide Trends

A large surveillance study analyzed trends and outcomes associated with candidemia from 2015 to 2024 in the US. Candidemia incidence has significantly increased over the study period. The 30-day mortality also increased from 24.7% to 31.8% ($p=0.02$). *Candida albicans* represented 40% of cases overall, but the proportion decreased over time, while *Candida auris* increased. Fluconazole resistance increased among *C. parapsilosis* and *C. tropicalis* isolates. This study highlights the increasing relevance of candidemia and concerning nationwide trends.

[Click here to read the study!](#)

Latest Clinical Education Pearls: Click to Read!

[Anaerobes in Diabetic Foot Infections](#)

[Adjust Your Adjustments: Considerations for Delayed Antibiotic Renal Dose Adjustments](#)

[Cultures and Next-Generation Sequencing](#)

[Anaerobes in Biliary Tract Infections](#)

[A Yeast By Any Other Name](#)