

KASIC NEWSLETTER

Issue Two, Volume Four

*Pictured Top: Hodgenville, KY
Attribution to JNix*



Are Discharge Antibiotics on Your Radar?



A recent publication in Antimicrobial Stewardship and Healthcare Epidemiology found that a team of pharmacists had a significant impact on antibiotic length of therapy when they began reviewing discharge prescriptions. Patients receiving appropriate length of therapy increased from 47% in the pre group to 68% in the post group (p=0.001).

All antimicrobial stewardship programs and staff must consider how to best spend their time. Targeting discharge prescribing may or may not be feasible at each institution. However, it is important to note that pharmacists and antimicrobial stewards have been successful in this area!

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

Piperacillin-tazobactam and vancomycin has synergistic risk for AKI. Or does it?

A new study compares cefepime to piperacillin-tazobactam as empiric therapy for patients admitted to an ICU. Most patients (77.2%) were also receiving vancomycin. The findings may surprise you!


[Click to read](#)

JAMA


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

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


POPULATION


1439 Men 1071 Women
Adults hospitalized with acute infection
Median age: 58 years

INTERVENTION

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

2634 Patients randomized
2511 Patients analyzed

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

LOCATION

1 
Medical center in Nashville, Tennessee

PRIMARY OUTCOME

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

FINDINGS

Highest stage of acute kidney injury or death by day 14

Cefepime

Survived with stage 3 acute kidney injury **7.0%** (85 of 1214 patients)
Died **7.6%** (92 of 1214 patients)

Piperacillin-tazobactam

Survived with stage 3 acute kidney injury **7.5%** (97 of 1297 patients)
Died **6.0%** (78 of 1297 patients)

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

Qian ET, Casey JD, Wright A, et al; Vanderbilt Center for Learning Healthcare and the Pragmatic Critical Care Research Group. Cefepime vs piperacillin-tazobactam in adults hospitalized with acute infection: the ACORN randomized clinical trial. *JAMA*. Published online October 14, 2023. doi:10.1001/jama.2023.20583



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:

An elderly man is admitted to the hospital with fever and hypoxia with a new infiltrate on chest X-ray. Staff at his nursing home note concern for aspiration. The patient is currently on ceftriaxone and azithromycin.

Is empiric anaerobic coverage needed?

- A. Yes
- B. No



Latest Clinical Education Pearls: Click to Read!

Spontaneous Bacterial Peritonitis Prophylaxis Simplified

QTc Prolongation: Fluoroquinolones, Macrolides, and Azole Antifungals

Norton Infectious Diseases Institute Grand Rounds Educational Series

Expel the Uninvited Guests from Your Gut: Guide to Intestinal Parasite Management

Intestinal Parasites, a microbiology presentation

Chickenpox, an infection prevention presentation

Source Control, an infection prevention presentation

Click here for Grand Rounds Information

Click here for the BEST answer

Read more cases here

Follow KASIC on X & LinkedIn

Coming up next on NIDI Grand Rounds

January 10, 2024

Vaccine awareness

January 24, 2024

Overview of clinical trials – RSV in adults