

KASIC NEWSLETTER

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*Pictured Top: Frankfort, KY
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Piperacillin-tazobactam in Patients with Penicillin Allergy

Penicillin allergy is commonly documented in hospitalized patients, and although piperacillin-tazobactam has a distinct R1 side chain compared to other penicillins, there is currently limited guidance as to whether it can be safely used in patients with history of penicillin allergy.

A recent retrospective cohort study evaluated tolerability of piperacillin-tazobactam in adults with a documented penicillin allergy. Patients were excluded if they had a previous penicillin skin test or successful penicillin challenge prior to piperacillin-tazobactam administration as well as if penicillin reaction was not consistent with allergy (i.e. nausea or diarrhea). Among 191 patients included, 187 (98%) patients tolerated piperacillin-tazobactam. Additionally, all 29 patients who had a documented penicillin anaphylactic allergy reaction tolerated one or more doses of piperacillin-tazobactam. This study suggests that cross reactivity of piperacillin-tazobactam and other penicillin antibiotics is low, and piperacillin-tazobactam might be considered in patients with prior documented penicillin allergies.

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

Eye-Opening Findings on Ocular Candidiasis

Patients with *Candida* spp. in blood cultures may be at an elevated risk of ocular candidiasis (OC) and it is not clear if all patients should undergo a routine funduscopy (eye exam) when found to have candidemia.

A 7-year Dutch multicenter retrospective study examined the role of eye exams in 402 patients with *Candida* spp. in blood cultures and its impact on antifungal therapy decisions. OC was diagnosed in 4.9% of patients who underwent funduscopy, and 60% of those cases were asymptomatic or unable to report symptoms. These results may signal that relying on patient-reported symptoms alone results in under-detection of OC. Notably, in all 15 OC patients, fundoscopic findings prompted treatment changes, which included prolonging therapy, addition or switch to an azole (for better ocular penetration), and intravitreal injections in select cases.

This study highlights the importance of considering a funduscopy in patients with candidemia. The authors recommend a single funduscopy in the first 5-10 days following the onset of candidemia, or possibly earlier if visual symptoms are present.

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



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 32-year-old patient is sent home from the ED on cephalexin for an uncomplicated UTI. A few days later the urine culture results with a "cefazolin, uncomplicated UTI susceptible" *E. coli* with an MIC of 8 µg/mL. Does a new prescription need to be called in?

- A. Yes
- B. No

[Click here for the BEST answer](#)

[Read more cases here](#)

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New National Estimates of Pediatric Sepsis

A retrospective cohort study of 3.9 million hospitalizations investigated pediatric sepsis. Sepsis was identified in 1.3% of hospitalizations overall. Sepsis in-hospital mortality was 10.1% and sepsis was present at some point in 17.8% of hospitalizations which resulted in death. Rates of sepsis cases and related deaths have not changed significantly from 2016 to 2022. Based on these findings, it is estimated that sepsis is involved in more than 1800 pediatric deaths in the US annually.

"These findings underscore the burden of pediatric sepsis and establish a standardized surveillance framework to advance prevention, quality improvement, and policy initiatives."

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

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