THE STEWARDSHIP SCOOP

The Antimicrobial and Diagnostic Stewardship Program (ADSP) team is here to bring you the latest

July 2026

THE PsA PSA: EMPIRIC THERAPY FOR *PSEUDOMONAS AERUGINOSA*

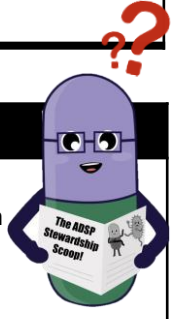
Take Away: Most infections do not require empiric coverage for *Pseudomonas*. Use ADSP guidance to determine when this is needed.

Considerations

Infection Type	*Pseudomonas* Should NOT Be Empirically Covered Routinely In	Empirically Cover Pseudomonas in Patients with
CNS Infections *ADSP CNS Guidance*	Community acquired meningitis or brain abscess, encephalitis	**Only** in neurosurgery meningitis or post-traumatic meningitis
CAP *ADSP CAP Guideline*	Most, including: aspiration pneumonia, patients transferred from long term care, patients with a history of PsA from non-respiratory sources	Severe CAP with a history of PsA from a **respiratory source within the past year.**
Skin and Soft Tissue Infections *ADSP SSTI Guidance*	Bite wounds, purulent SSTI, non-purulent cellulitis, diabetic foot ulcer and decubitus ulcers without risk factors	Decubitus ulcer WITH risk for stool contamination, surgical site infections, diabetic foot infection with risk factors for PsA (prior PsA, prior admit or abx in past 90 days, macerated/water exposure)
Urinary Tract Infections *ADSP UTI Guidance*	Urine culture with PsA from > 12 months, history of PsA from sources other than urine cultures	Past urine cultures within the **previous 6-12 months** where PsA was isolated
Intra-abdominal Infections	Community-acquired intra-abdominal infections	Can be considered in hospital-acquired infections

Choosing an Empiric Anti-Pseudomonal Agent:

When should I use one anti-pseudomonal agent or another? Consider:



Coverage Differences Between Agents

- At most sites, PsA has higher susceptibility to cefepime than meropenem or piperacillin-tazobactam
- Piperacillin-tazobactam provides anaerobic and *Enterococcus* coverage compared to cefepime

Source and Potential Co-Infections

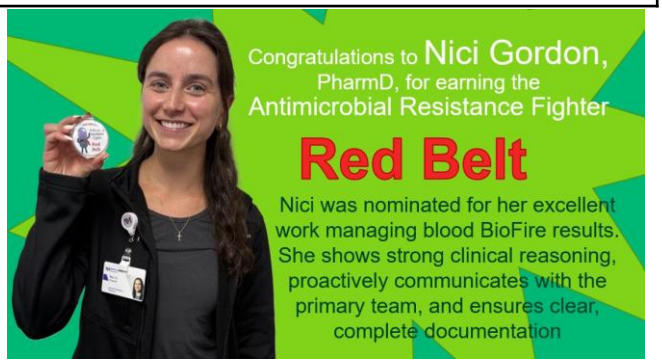
- Concern for intra-abdominal co-infection: consider piperacillin-tazobactam for anaerobic coverage
- Concern for CNS co-infection: use cefepime given higher CNS penetration

Prior Cultures

- Cultures should be from the same source and recent
- Urine cultures should be from the past 6-12 months
- Respiratory cultures should be from the past year

Toxicity of Therapy

- Piperacillin-tazobactam carries a significant sodium content and fluid volume – may not prefer in fluid overload or heart failure
- Cefepime - low risk of neurotoxicity – risk is increased in renal impairment and older patients



References: Almomani 2020. PMID: PMC7735628; Hardi 2025. PMID: 40523836; Wang 2019. PMID: 31858019