



## ANTIBIOTIC AWARENESS WEEK

November 18–24, 2022

# Antibiotic Extended Infusion Dosing

## *Why does it matter?*

1

Antibiotic dose modeling has identified that standard infusions of some antibiotics may not be adequate to reach the desired dosing target for antibacterial efficacy

2

Antibacterial efficacy and the prevention of resistance is optimized when the time above the minimum inhibitory concentration (MIC) is maintained during the dosing interval for antibiotics such as cefepime, piperacillin/tazobactam, and meropenem

3

Extending the infusion of these antibiotics increases the likelihood of achieving this target and are best practice for the following reasons:

- High morbidity & mortality associated with multi-drug resistant infections
- Variability in achieving target attainment in critically ill patients with standard infusions
- Unknown MIC value for the infectious organism upon therapy initiation
- Relatively low potential for toxic effects of selected antibiotics at approved doses

4

When are extended infusion doses **not** appropriate?

- Patients located in the emergency department, peri-operative operative room, post-anesthesia care units, or other procedural areas
- Patients with intravenous (IV) compatibility concerns &/or limited IV lines
- The *initial dose is administered using standard infusion times* because an extended infusion does not provide a rapid attainment of target concentrations above the MIC with the first dose that is given

Created by Alabama Infectious Diseases Society (ALIDS)



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