Abstract:

Imipenem/cilastatin/relebactam is a β-lactam/β-lactamase inhibitor that has been recently FDA approved for complicated intra-abdominal and urinary tract infections under the brand name Recarbrio®. It has activity against imipenem non-susceptible Pseudomonas species as well as KPC-producing Enterobacteriaceae. Optimization of PK/PD of antimicrobials particularly in critically-ill patients is essential, but unfortunately, is hindered by separate administration that requires significant resources. The objective of the study is to investigate the compatibility of Y-site administration of imipenem/cilastatin/relebactam with a wide range of antimicrobials. After admixture, physical characteristics, pH changes and turbidity were measured for each 2-drug combination at a time. With the exception of amphotericin B deoxycholate, and posaconazole, imipenem/cilastatin/relebactam was compatible with a variety of antimicrobial agents. The compatibility profile described, will facilitate incorporation into hospital protocols, contribute to therapy optimization and guide clinicians to avoid successive administration, consequently resulting in reduction of total infusion time, optimization of PK/PD, economizing nursing time and cost containment.

Reference:

Ghazi, I.M., El Nekidy, W.S., Asay, R., Fingmori, P., Knarr, A. and Awad, M. (2020) Simultaneous administration of imipenem/cilastatin/relebactam with selected intravenous antimicrobials, a stewardship approach. PLoS One. 15(5), p.e0233335. doi: 10.1371/journal.pone.0233335. eCollection 2020.

Full Text