

## IV antibiotic administration rate

### Abstract:

**Objective:** In the outpatient setting, antibiotics such as ceftriaxone, ertapenem, daptomycin and meropenem (for patients with end-stage kidney disease) are generally, administered via once-daily infusions. It is common practice to administer these antibiotics over 30-minutes even though the manufacturers' product summaries, recommend use of rapid infusions. In February 2017, we switched to rapid infusion as part of a continuous quality improvement effort to improve our outpatient services.

**Method:** We conducted a prospective observational study of the safety and efficacy of rapid infusions of ceftriaxone, ertapenem, daptomycin and meropenem between February 2017 and June 2018 at the Outpatient Parenteral Antibiotic Therapy centre, National University Hospital, Singapore . Data collected included patient, demographics, antibiotic indications, treatment duration, treatment outcomes, vascular access and infusion-related adverse events.

**Results:** A total of 4326 doses were administered via rapid infusion to 184 patients: ceftriaxone (doses=2616, n=105), ertapenem (doses=1584, n=76), meropenem (doses= 84, n=2) and daptomycin (doses=42, n=1). There were no rapid infusion-related adverse reactions for any patients during the entire treatment duration.

**Conclusion:** The rapid administration of intravenous ceftriaxone, ertapenem, meropenem and daptomycin in an outpatient setting is clinically safe and well tolerated.

### Reference:

Ling JOE, Salada B, Shan LY, Archuleta S, Fisher D. Safety and Efficacy of a 5-Minute Infusion versus the Standard 30-minute Infusion for Antibiotics in an Outpatient Setting. *Int J Infect Dis.* 2021 Jul 11:S1201-9712(21)00574-9. doi: 10.1016/j.ijid.2021.07.018. Epub ahead of print. PMID: 34260955.