

## Clinical Outcomes of Critically Ill Patients with Sepsis Receiving Extended and Standard Meropenem Infusion in Malaysian Hospitals

**Authors :** Fahmi Hassan, Noorizan Abdul Aziz, Yahaya Hassan, Hazlinda Abu Hassan

**Abstract :** Sepsis incidence in critical care settings is a major problem in health care. Extended antibiotic infusion is thought to be superior to traditional dosing especially when treating critically ill patients with sepsis. We compared clinical outcomes of critically ill patients with sepsis receiving 30-minute meropenem infusion and three-hour meropenem infusion. A retrospective case-control study was conducted among septic patients treated with meropenem infusion in ICUs of three hospitals. Patients included in the study received either extended or standard meropenem infusion as per the practice of individual settings. Outcomes and clinical data were retrospectively collected from the electronic databases and patients' files. A total of 108 patients received extended meropenem infusion while another 117 patients received standard meropenem infusion. Patients receiving the extended meropenem infusion were found to have a significantly lower shorter length of hospital and ICU stay. It was also found that among those receiving extended meropenem infusion, 54.7% (64/117) had a reduction of SAPS II score, while only 44% (48/108) of patients receiving standard meropenem infusion had reduced scores. This study will strengthen the evidence in using extended meropenem infusion as a standard practice in critical care settings. As this is the first study of its kind done in Malaysia, it proves that prolonged meropenem infusion may be beneficial to critically ill patients with sepsis. However, randomized clinical trials with large sample size should be carried out in local settings in order to minimize other confounders that may influence with the result of the study.

**Keywords :** antibiotics, beta lactams, critical care, extended infusion, meropenem

**Conference Title :** ICPP 2016 : International Conference on Pharmacy and Pharmacology

**Conference Location :** Bangkok, Thailand

**Conference Dates :** December 12-13, 2016