Abstract:

There has been a surging interest in using elastomeric infusion devices to deliver outpatient parenteral antimicrobial therapy (OPAT), which is more cost-effective than standard antibiotic administration, which requires multiple daily home visits. This has been particularly important since the outbreak of the coronavirus pandemic, because reducing patient contact can also help to minimise transmission of COVID-19 to outpatients who are at a high risk of COVID-19-triggered complications. In this retrospective study, the clinical effectiveness of intravenous (IV) infusion of flucloxacillin using an elastomeric device was explored in a convenience sample of patients. Patients with three primary infective diagnoses-bloodstream infection, non-vertebral osteomyelitis and vertebral osteomyelitis-were included in the analyses. In non-vertebral osteomyelitis patients, Accufuser antibiotic infusion shortened the course of OPAT care relative to standard antibiotic administration (p<.05). In contrast, in vertebral osteomyelitis patients, it prolonged the course of OPAT care relative to standard administration (p<.05). In patients with bloodstream infections, no significant difference was found between the treatment modes (p=.93). Thus, the clinical effectiveness of Accufuser antibiotic infusion varies among patients with different infective diagnoses, and there seems to be a complex relationship between the method of antibiotic delivery and the patient's condition.

Reference: