Effect of single-dose dalbavancin administration on 30-day hospital readmission for the treatment of acute bacterial skin and skin structure infections (ABSSSI) in the emergency department

Authors

Meaghan Aleya Rettele, PharmD Candidate, Class of 2022, University of Kansas School of Pharmacy, Olathe Health

Patricia Lynne Callahan, PharmD, PGY2 Infectious Diseases Resident, Kansas City VA Medical Center

Kathryn Michelle Lincoln, PharmD, BCPS, BCIDP, Clinical Pharmacist – Infectious Diseases, Antimicrobial Stewardship Program Coordinator, Olathe Health

Purpose

Dalbavancin (Dalvance®) is an intravenous (IV) glycopeptide antibiotic approved for the treatment of skin and soft tissue infections (SSTI) with a similar spectrum of activity to that of vancomycin. It covers gram-positive organisms, such as methicillin susceptible *Staphylococcus aureus* (MSSA), methicillin resistant *Staphylococcus aureus* (MRSA), vancomycin-susceptible *Enterococcus faecalis, Streptococcus pyogenes,* and *Streptococcus agalactiae.* However, unlike vancomycin, dalbavancin is a single-dose medication infused over thirty minutes rather than intermittent infusions over a period of days. The advantages of using a single-dose antibiotic rather than one that requires multiple days of therapy include hospital admission cost savings and ensuring adherence with antibiotic regimen. One large disadvantage is the cost associated with the dalbavancin. Being a newer antimicrobial it is much more expensive than other gram-positive agents. The purpose of this study was to review dalbavancin use and assess 30-day readmission rates, cost, and length of stay between patients who receive dalbavancin for the treatment of SSTI compared to patients admitted to the hospital to receive IV antibiotics.

Methods

Emergency department utilization of dalbavancin for skin and soft tissue infections was implemented November 2019. Diagnosis codes relevant to SSTI were utilized to identify pre-implementation patients that were hospitalized for treatment with IV antibiotics. The pre-implementation patients were assessed using the dalbavancin criteria to determine if they would have been an eligible recipient. Patient charts were reviewed and data was collected for a twelve month time frame post-implementation. Over this time, sixteen patients received dalbavancin in the emergency department for the treatment of SSTI.

Patients were compared for outcome measures, including cost of antibiotic therapy, 30-day readmission, and length of stay.

Results

Research in progress

Conclusion

Research in progress