Intravenous literature: Chaftari, A.M., Hachem, R., Mulanovich, V., Chemaly, R.F., Adachi, J., Jacobson, K., Jiang, Y. and Raad, I. (2010) Efficacy and safety of daptomycin in the treatment of Gram-positive catheter-related bloodstream infections in cancerÂ patients. International Journal of Antimicrobial Agents. 36(2), p.182-6.

Abstract:

Excessive vancomycin usage has contributed to the emergence of vancomycin-resistant enterococci, and a high vancomycin minimal inhibitory concentration (MIC) >1.0 microg/mL has been associated with poor outcome in patients with meticillin-resistant Staphylococcus aureus (MRSA) infection. In view of these limitations, there is a need for an alternative agent. We evaluated the clinical efficacy and safety of daptomycin given as an alternative agent in the treatment of Gram-positive catheter-related bloodstream infections (CRBSIs) in cancer patients. Between June 2006 and March 2008, 40 patients with probable or definite CRBSI caused by Gram-positive organisms were prospectively enrolled to receive daptomycin intravenous 6 mg/kg/day for up to 4 weeks. In addition, 40 historical matched control patients treated with vancomycin were retrospectively identified. The control group was matched based on underlying disease, organism and neutropenic status. The daptomycin group was comparable with the vancomycin group in terms of neutropenia rate, complications, adverse events, length of hospital stay and death. However, more patients in the daptomycin group achieved symptom resolution at 48h compared with the vancomycin group (76% vs. 53%; P=0.04). Similarly, more patients in the daptomycin group achieved microbiological eradication at 48h compared with the vancomycin group (78% vs. 34%; P<0.001). Although

not significant, nephrotoxicity was almost three-fold lower in the daptomycin group. The overall response was significantly better for daptomycin compared with vancomycin (68% vs. 32%; P=0.003). In conclusion, compared with vancomycin, daptomycin treatment of Gram-positive CRBSI in cancer patients was significantly associated with earlier clinical and microbiological response as well as improved overall response.