

022

ASSOCIATION BETWEEN VANCOMYCIN MIC AND FAILURE RATES IN MRSA BACTEREMIA

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Reports of MRSA strains with intermediate susceptibility and higher levels of resistance to vancomycin have emerged over the past decade. Poor outcomes have been reported in patients with MRSA bacteremia who have vancomycin MIC greater than or equal to 2. Thus, the effectiveness of vancomycin against these strains has become questionable. This is a retrospective, cohort study evaluating the relationship between vancomycin failure rates and organism MICs in patients with MRSA bacteremia. Patients with positive MRSA blood cultures from January 2006 through December 2006 were selected for review. Patients included were 18 years or older who received vancomycin within 48 hours after blood culture collection and survived > 48 hours after vancomycin administration. Patients were excluded if they had polymicrobial infections, resolution of bacteremia after valve replacement or symptomatic resolution within 48 hours after central line removal. Immunocompromised patients including HIV with a CD4 < 200 and those with prior exposure to vancomycin within 6 months were also excluded. Primary outcomes evaluated were treatment failure and death within 30 days of the initial culture. Secondary outcomes included cost of hospitalization secondary to duration of stay and treatment failure, in

addition to outcomes associated with subtherapeutic vancomycin troughs. Data analysis was performed using descriptive statistics, Fisher exact test, and two-tailed student t-test where applicable. Results will be presented.