

RISK FACTORS AND CLINICAL OUTCOMES OF MULTIDRUG-RESISTANT *ACINETOBACTER BAUMANNII* BACTEREMIA AT A UNIVERSITY HOSPITAL IN THAILAND

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Abstract. Multidrug-resistant (MDR) *Acinetobacter baumannii* has become a major cause of hospital-acquired infection worldwide. There are few papers regarding this particular subject. Our aim was to assess the incidence of bacteremia due to MDR *Acinetobacter baumannii*, factors associated with the infection, and clinical outcomes. We studied 49 cases of *A. baumannii* bacteremia in adult patients admitted to a university hospital in Northeast Thailand between 2005 and 2007. The incidence of MDR *A. baumannii* bacteremia was 3.6 episodes per 10,000 hospital admissions. Significantly independent factors associated with MDR *A. baumannii* bacteremia were previous: 1) ICU admission [odds ratio (OR) 10.01; 95% confidence interval (CI) 1.39-72.20]; 2) use of beta-lactam/beta-lactamase inhibitor antibiotics (OR 8.06; 95%CI 1.39-46.64); and 3) use of a carbapenem antibiotics (OR 11.40; 95%CI 1.44-89.98). The overall mortality rate was significantly higher in the MDR group than in the susceptible group (91.7% vs 48%, respectively) ($p=0.001$). The significantly independent factors related to mortality were: 1) APACHE II score (OR 1.25; 95%CI 1.03-1.52) and 2) secondary bacteremia (OR 14.86; 95%CI 1.37-161.90). This study revealed the significantly independent factors associated with MDR *A. baumannii* bacteremia were prior ICU admission and prior use of broad spectrum antibiotics. This infection has a high mortality rate. Emphasis needs to be on prevention, strict application of infection control and appropriate use of antibiotics.

Keywords: *Acinetobacter*, bacteremia, multidrug-resistant, Thailand

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