DISSEMINATION OF CLASS I INTEGRON IN *ACINETOBACTER BAUMANNII* ISOLATED FROM VENTILATOR-ASSOCIATED PNEUMONIA PATIENTS AND THEIR ENVIRONMENT

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Abstract. Multidrug resistant *Acinetobacter baumannii* has become the most common cause of health care-associated infections at Maharaj Nakhon Si Thammarat Hospital, Thailand. The objective of the study was to detect integrons using PCR-based method from 96 *A. baumannii* isolates from ventilator-associated pneumonia (VAP) patients and their environment. Antibiotic susceptibility was determined using a disk diffusion technique. Forty-six isolates exhibited integrase genes, with only class I and class II integron detected in 43 and 3 *A. baumannii* isolates, respectively. Twenty-seven of 52 clinical and 19 of 44 environmental isolates were integron-positive. Detection rate of integron-positive *A. baumannii* isolated from VAP patients increased from 25% to 83% over the 4 month study period. The majority (91%) of integron-positive *A. baumannii* showed resistance to 6 or more of 11 antibiotics tested and 72% of class I integron-positive isolates were imipenem-resistant. Thus, class I integron-positive *A. baumannii* had spread among the VAP patients and into hospital environment, the latter acting as reservoirs of potential pathogens possessing drug resistance genes.

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