

中文題目：以最適劑量策略來控制醫療照護相關感染之綠膿桿菌對 piperacillin-tazobactam 的抗藥性

英文題目：Optimal dosing of piperacillin-tazobactam for control of resistance of *Pseudomonas aeruginosa* causing healthcare associated infection: an 11 years study

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Background : *Pseudomonas aeruginosa* is an important pathogen causing healthcare associated infection. The emerging resistance of *P. aeruginosa* limited physician's choice of treatment. This study aimed to control the resistance of *P. aeruginosa* through optimal the dosing strategy of piperacillin-tazobactam even under large amount of usage..

Method : The dosing strategy of piperacillin-tazobactam was standard infusion until the first half year of 2008. Since the second half of 2008, we started extended infusion strategy of piperacillin-tazobactam in adult intensive care units. The extended infusion strategy had been implemented to the whole hospital since the second half of 2010. The data of healthcare associated infection was collected by infection control department.

Result : The resistance of *P. aeruginosa* to piperacillin-tazobactam was low before 2008. The brand piperacillin-tazobactam was shifted to generic piperacillin-tazobactam in our hospital list since 2008. The resistance rate also had a peak in the first half of 2008. After the implementation of extended dosing strategy, the resistance rate to piperacillin-tazobactam decreased. An outbreak of carbapenem-resistant *P. aeruginosa* happened in second half of 2015, causing another peak of resistance.

Conclusion : The optimal dosing strategy of piperacillin-tazobactam played a role in control of *P. aeruginosa* resistance. The infection control activity should be persistent in the meantime.