

# The prevalence of seven antibiotics and colistin resistance of *Pseudomonas aeruginosa* isolated in Can Tho Central General Hospital, Vietnam

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October 16, 2023

## Abstract

**Abstract:** The incidence of *Pseudomonas aeruginosa* causing nosocomial infections has increased in recent years, along with the emergence of resistant strains of bacteria causing mortality. Many recent studies have shown increased resistance to colistin, which is the last resort for treating multidrug-resistant *P. aeruginosa*. A cross-sectional descriptive study and convenience sample were conducted to determine the percentage of infections, rates of seven antibiotics, and colistin resistance in *P. aeruginosa* strains isolated in Can Tho Central General Hospital and relevant factors from June 2020 to April 2021. *P. aeruginosa* infection rate was 7.9%. The specimens contained 233 strains of *P. aeruginosa* isolated. Incident rates in males/females were 9.3%/6.2%, the most of 19-29 years. The highest rate was in urine specimens (9.8%) and sputum (8.8%). The male sex had a higher infection rate than the female, and urine samples accounted for the highest rate of *P. aeruginosa* infections (13.9%). The rate of *P. aeruginosa* infections was associated with gender and various species ( $p < 0.05$ ). The prevalence of *P. aeruginosa* infections showed an association with gender and types of specimens ( $p < 0.05$ ). The highest resistance rate in *P. aeruginosa* against ciprofloxacin was 60.5%, next to gentamicin and imipenem (52.4% and 50.2%). 3% *P. aeruginosa* against colistin. **Keywords:** *Pseudomonas aeruginosa*; drug resistance; *Pseudomonas* infection; colistin

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