

## Lower antimicrobial resistance by use of prescribing guidelines

A French study has shown that the incidence of ventilator-associated pneumonia (VAP) caused by Gram-negative bacteria resistant to antibacterials can be reduced by introducing guidelines for the prescribing of antibacterials.\*

This 4-year study included 2033 patients requiring mechanical ventilation for > 48 hours. The number of patients with VAP caused by Gram-negative bacteria resistant to antibacterials fell significantly from 231 in the 2-year period before programme implementation (January 1995 to December 1996) to 161 in the 2-year period thereafter (January 1997 to December 1998). Also, the total number of antibacterials used decreased significantly after programme implementation.

In particular, the total number of days of ciprofloxacin treatment decreased from 8022 to 1252 days and that of ceftazidime treatment from 993 to 670 days. Further, the proportion of potentially resistant VAP-responsible Gram-negative bacteria that were susceptible to antibacterials increased after programme implementation.

Importantly, the study results suggest that antimicrobial resistance can change after a modification in antibacterial prescribing patterns.

\* Such guidelines for the prescribing of antibacterials were implemented at the intensive-care unit (ICU) of the University Hospital of Bordeaux, France, recommending a variation in the choice of empirical and therapeutic antibacterial treatment, with a supervised rotation, and a restricted use of ceftazidime and ciprofloxacin.

Gruson D, et al. Rotation and restricted use of antibiotics in a medical intensive care unit: impact on the incidence of ventilator-associated pneumonia caused by antibiotic-resistant Gram-negative bacteria. *American Journal of Respiratory and Critical Care Medicine* 162: 837-843, Part 1, Sep 2000 800846629