

# ANALYSIS OF ANTIBIOTIC TREATMENT IN PATIENTS WITH VENTILATOR-ASSOCIATED PNEUMONIA

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## Background and Importance

Pneumonia is the **main infectious complication** in patients with **mechanical ventilation**. Early adequate empirical therapy is an important determinant of clinical outcome.

## Aim and Objectives

To describe the antibiotic treatment of patients with ventilator-associated pneumonia (VAP) and evaluate whether it was appropriate according to the hospital protocols (**choice of empirical treatment and duration**).

## Materials and Methods

- Observational, retrospective and multidisciplinary analysis in a tertiary hospital.
- All patients with **VAP during a year** were included.
- Variables collected: demographics, treatment, duration and clinical outcome (exitus or not).
- Descriptive statistical analysis.

Appropriate treatment was considered when **piperacillin/tazobactam, cefepime or meropenem (+/- amikacin)** were prescribed for **7-15 days**, according to hospital protocols.

## Results

Antibiotic treatments of 32 patients with VAP were analysed (81% men, mean age: 61 years old).

<b>Choice of empirical treatment</b>	<b>Appropriate treatment</b> considering the identified pathogen in all patients. Empirical treatments (+/- amikacin): <ul style="list-style-type: none"><li>● Piperacillin/tazobactam n=23</li><li>● Cefepime n=2</li><li>● Meropenem n=7</li></ul>
<b>Duration</b>	Average duration: <b>14 days</b> (SD:9; median:11) → within the range established for VAP in the hospital protocols. <ul style="list-style-type: none"><li>● ≤ 15 days (n=23, 72%)</li><li>● &gt; 15 days (n=9, 28%)</li></ul>

## Conclusion and Relevance

**Empirical treatments** for VAP were **appropriated** according to hospital protocols. Although in general length of treatment ranged between **7-15 days** there were some **exceptions** in which this duration needed to be prolonged. An effort should be done to **stablish shorter** duration when possible.

