

4CPS-004 IMPACT OF INADEQUATE EMPIRICAL THERAPY ON THE MORTALITY RATE IN PSEUDOMONAS AERUGINOSA INFECTIONS

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BACKGROUND AND IMPORTANCE

The appropriate use of antibiotics and their clinical impact is a necessary field of study to address the high incidence of resistance

AIM AND OBJECTIVES

Analyse the **impact of inadequate empirical therapy (IAT)** on mortality in patients with Pseudomonas aeruginosa (PA) infection in a tertiary hospital

MATERIALS AND METHODS

Retrospective observational study of patients with PA infection and treated with previous empirical antipseudomonal antibiotics (01/01/2021-31/10/2021)

Variables collected

- Gender
- Age
- Place of admission
- Dosing regimen
- Primary focus of infection
- Mortality (during admission or 30 days after discharge)

“IAT” = **non-adherence** to the local guidelines that establish the new **EUCAST2021** dosing criteria to achieve sufficient levels of antibiotics reported as "sensitive with increased exposure" and which, based on the prevalence of multi-resistance in PA, recommends empirical use with bitherapy until the antibiogram is available.

RESULTS

	Non-ICU N=126	Intensive care unit (ICU) N=92	
Gender (%men)	70%	67%	
Age (mean±SD)	71±15	63 ±13	
Main source of infection	lung (29%) and urinary tract (29%)	lung (49%)	
Antibiotics	<ul style="list-style-type: none">• β-lactams 66%• Quinolones 23%	<ul style="list-style-type: none">• β-lactams 77%• Aminoglycosides 14%	
IAT	68%	48%	p=0.041

MORTALITY RATE

inadequate vs adequate (empirical therapy)

Non-ICU

22.4% vs 7.3% → OR: 3.64 (95% CI 1.01-13.13)

ICU

50.0% vs 39.6% → OR:1.53 (95% CI 0.67-3.49)

CONCLUSION AND RELEVANCE

The higher mortality observed in cases of IAT implies the need to work on the adequacy of dosage according to EUCAST criteria and to promote bitherapy until the antibiogram is available.

