

COMPARATIVE ANALYSIS OF THE EFFECTIVENESS OF CEFTAZIDIME-AVIBACTAM ADMINISTERED BY INTERMITTENT INFUSION VERSUS CONTINUOUS INFUSION

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BACKGROUND AND IMPORTANCE

The method of administration indicated in the data sheet of ceftazidime-avibactam (CAV) is by intermittent infusion (INTINF) over 120 minutes. However, continuous infusion (CONTINF) is an off-label recommendation in beta-lactam antibiotics in order to achieve the pharmacokinetics/pharmacodynamics efficacy objectives.

MATERIALS AND METHODS

Observational retrospective study was conducted in 2022. Variables collected: sex, age, empirical/directed therapy, isolated microorganism, treatment duration, previous/concomitant antibiotic, infection site, admission to intensive care unit (ICU), culture negativisation, clinical resolution and *exitus*.

AIM AND OBJECTIVES

To compare the effectiveness of the administration of CAV by INTINF (2 g every 8 hours in adults or 50 mg/Kg/8 hours in the paediatric population) versus CONTINF (6 g in 24 hours).

RESULTS

92 patients were included, 67 in the INTINF group and 25 in the CONTINF cohort (70.1% and 72.0% men, respectively). Median age was 47 (1-86) years (INTINF) and 51 (1-84) years (CONTINF). Exitus 28% (INTINF) and 40% (CONTINF).

VARIABLES	INTINF	CONTINF
Directed treatment (%)	92	96.5
Median duration of CAV treatment (months)	11 (1-58)	10 (1-29)
Patients who received previous antibiotic treatments (%)	79.1	80
Patients admitted to the ICU (%)	50.7	80.8
Negativization of the cultures	34.3	32
Resolution of the infectious process	56.7	48

INFECTION SITE (%)	INTINF	CONTINF
Respiratory	70	64
Skin and soft parts	9	0
Bacteraemia	7.5	5
Abdominal	6	4
Others	7.5	8

Treatment was directed in 92.5% (INTINF) and 96.0% (CONTINF), and the main microorganisms isolated were, respectively: multidrug-resistant *Pseudomonas aeruginosa* (75.8% vs. 76.0%), *Klebsiella pneumoniae* (8.1% vs. 12.0%), *Burkholderia cenocepacia* (4.8% vs. 4.0%), and others (13.3% vs. 8.0%).

CONCLUSIONS AND RELEVANCE

In this study, the administration of CAV by INTINF showed greater effectiveness than CONTINF. Therefore, it seems essential to carry out new studies that corroborate the effectiveness of CAV administered by CONTINF.