

# DOSAGE ADJUSTMENT OF NEW BETA-LACTAM ANTIBIOTICS IN PATIENTS WITH RENAL IMPAIRMENT



4CPS-134

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## Background and Importance

Appropriate dose adjustment of new  $\beta$ -lactam antibiotics in patients with renal impairment is essential to ensure therapeutic effectiveness and safety

## Aim and Objectives

To evaluate whether appropriate renal dose adjustments were applied in patients with renal impairment receiving new  $\beta$ -lactam antibiotics

## Materials and Methods

- Observational, descriptive, retrospective study
- Conducted from the introduction of new  $\beta$ -lactams until September 2025
- Patients with GFR  $<50$  mL/min/1.73 m<sup>2</sup> were included

### Collected variables

- ✓ Sex
- ✓ Age
- ✓ GFR
- ✓ Prescribed dose
- ✓ Reason for treatment discontinuation

### Antibiotics evaluated

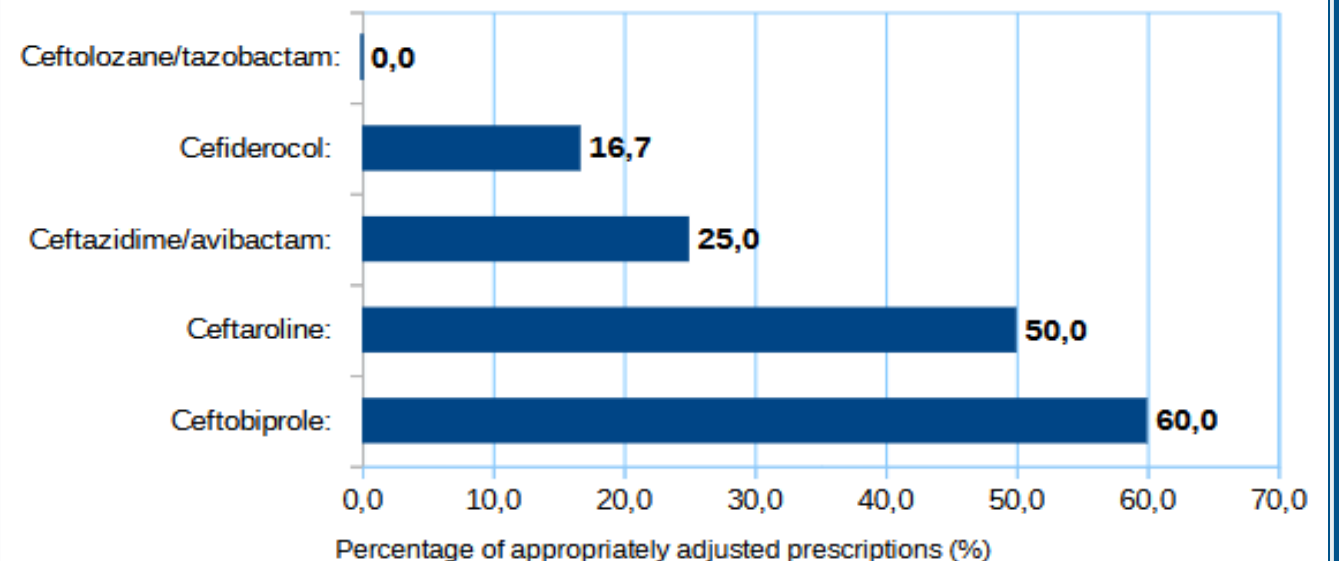
- ✓ Aztreonam/avibactam
- ✓ Cefiderocol
- ✓ Ceftaroline
- ✓ Ceftazidime/avibactam
- ✓ Ceftobiprole
- ✓ Ceftolozane/tazobactam
- ✓ Meropenem/vaborbactam

## Results

100 patients were analyzed

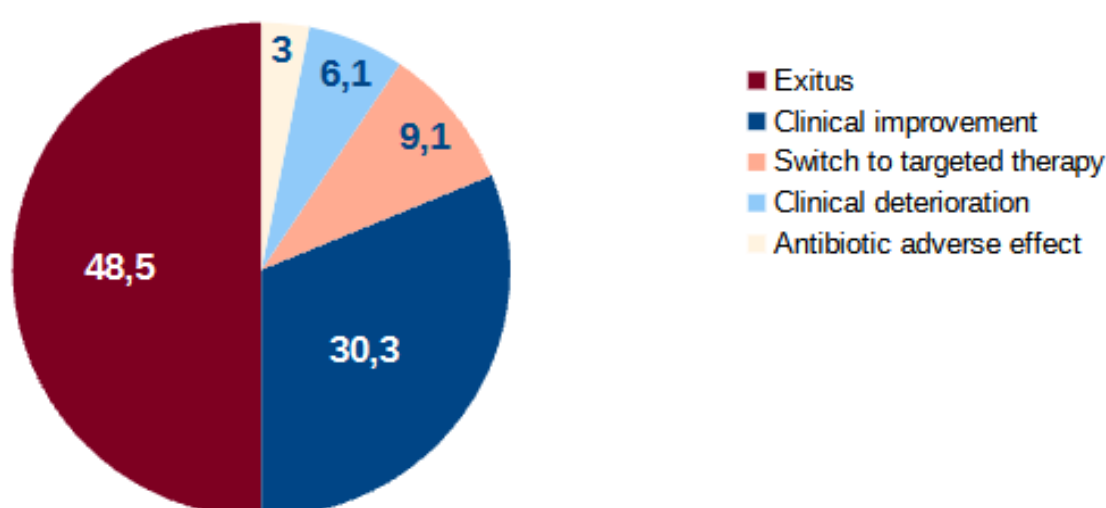
↓  
33 had GFR  $<50$  mL/min/1.73 m<sup>2</sup>    ↗ 66.6% male  
↓  
41 treatment lines were recorded    ↘ 70.8 ± 11.4 years

### APPROPRIATE DOSE ADJUSTMENT BY ANTIBIOTIC

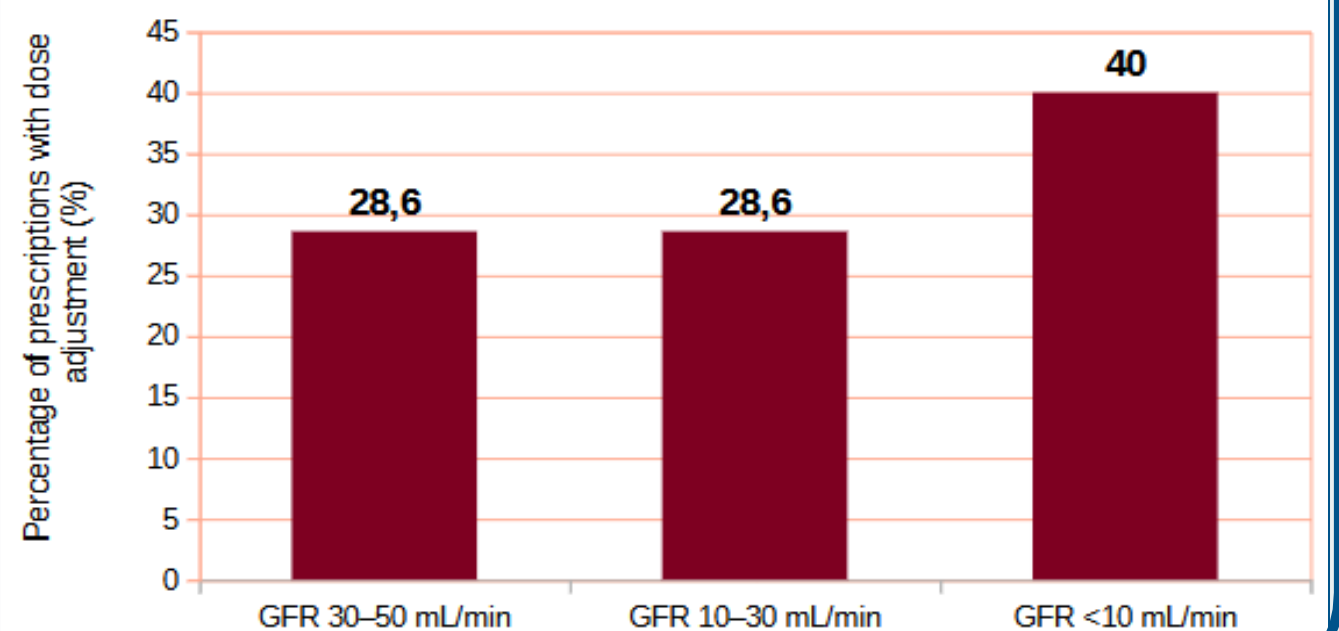


### REASONS FOR TREATMENT DISCONTINUATION

Percentage of treatment discontinuation (%)



### DOSE ADJUSTMENT FOR RENAL FUNCTION



## Conclusions and Relevance

Renal dose adjustments for new  $\beta$ -lactam antibiotics remain underutilized in clinical practice. Pharmacist involvement within a multidisciplinary team may improve dose optimization and patient management.