

ANTIBIOTIC DESENSITIZATION IN PATIENTS WHO WERE PREVIOUSLY TREATED WITH POTENTIALLY ALLERGY-TRIGGERING MOLECULES

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BACKGROUND AND IMPORTANCE

Patients with antibiotic allergy label (AAL) are frequent in hospitals. AAL may lead to using alternative options that are less effective or safe and more expensive. **Desensitization** is a strategy to manage AAL patients but we noticed that several patients receive antibiotics with a **similar molecule** to the one that will be desensitized later.

Aim and objectives: To analyze the percentage of patients undergoing desensitization that were previously exposed to a molecule that potentially could cause them allergy prior to desensitization.

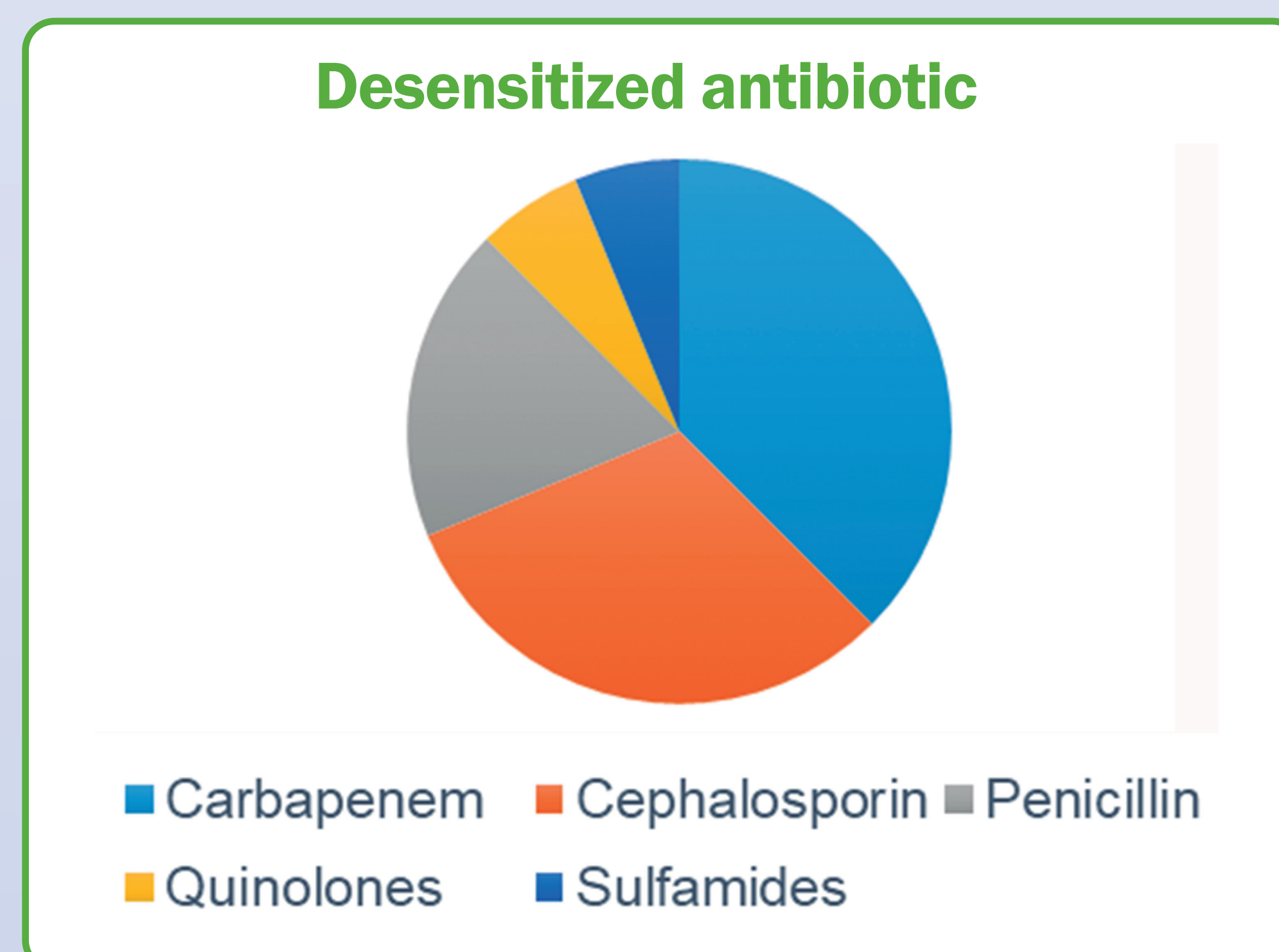
MATERIAL AND METHODS

Retrospective study in a tertiary-care 400-bed university hospital from 2015 to 2021. All patients undergoing antibiotic desensitization during this period are included.

Demographic, clinical and microbiologic data are collected. Quantitative variables are presented by median and interquartile range (IQR). Univariate analysis by Chi-square test.

RESULTS

- 16 desensitization
- 14 patients
- Completed in 15 cases
- Antibiotic treatment duration 9 (0-50) days



Six (42.9%) were previously exposed to a similar molecule to the one that was desensitized later. We didn't find significant difference with desensitization completion and mortality in exposed group.

Patient	Similar prior antibiotic	Desensitized antibiotic
2	Imipenem	Ceftolozane/Tazobactam
4	Meropenem	Ceftaroline
7	Ceftazidime	Cloxacillin
11	Penicillin G	Ceftriaxone
12	Imipenem	Ceftaroline
13	Cefotaxime	Ampicillin

	Exposed	Not-exposed	p-value
Bacteremia, n	6	4	0.026
Endovascular, n	3	1	0.053
<i>Staphylococcus</i> spp, n	3	2	0.068
Antibiotic treatment duration, median (days)	12,5	7	0.053

Patients	
Women, n	10
Age (years)	74 (58-83)
CHARLSON	6 (3-12)
quickSOFA	0.5 (0-2)
Infection source	
Endovascular	4
Pulmonary	4
Intra-abdominal	2
Skin and soft tissue	2
Others	4
Community-acquired	10
Nosocomial	6
Post-surgery	6
Bacteremia	10
Microbiologic data	
Enterobacterales	6
<i>Staphylococcus</i> spp	3
<i>Pseudomonas aeruginosa</i>	2
<i>Streptococcus</i> spp	2
Others	3
Polymicrobial	7

CONCLUSION AND RELEVANCE

Despite the fact that desensitization strategy is not frequent, many of the patients have been previously treated with antibiotics that could have triggered an allergy with clinical consequences.

The desensitization of beta-lactams in patients with bacteremia is especially interesting due to the severity of this pathology and the high activity of this family of antibiotics.