



# ANTIBIOTIC RESISTANCE IN COMMUNITY - ACQUIRED PNEUMONIA: A ROMANIAN EXPERIENCE

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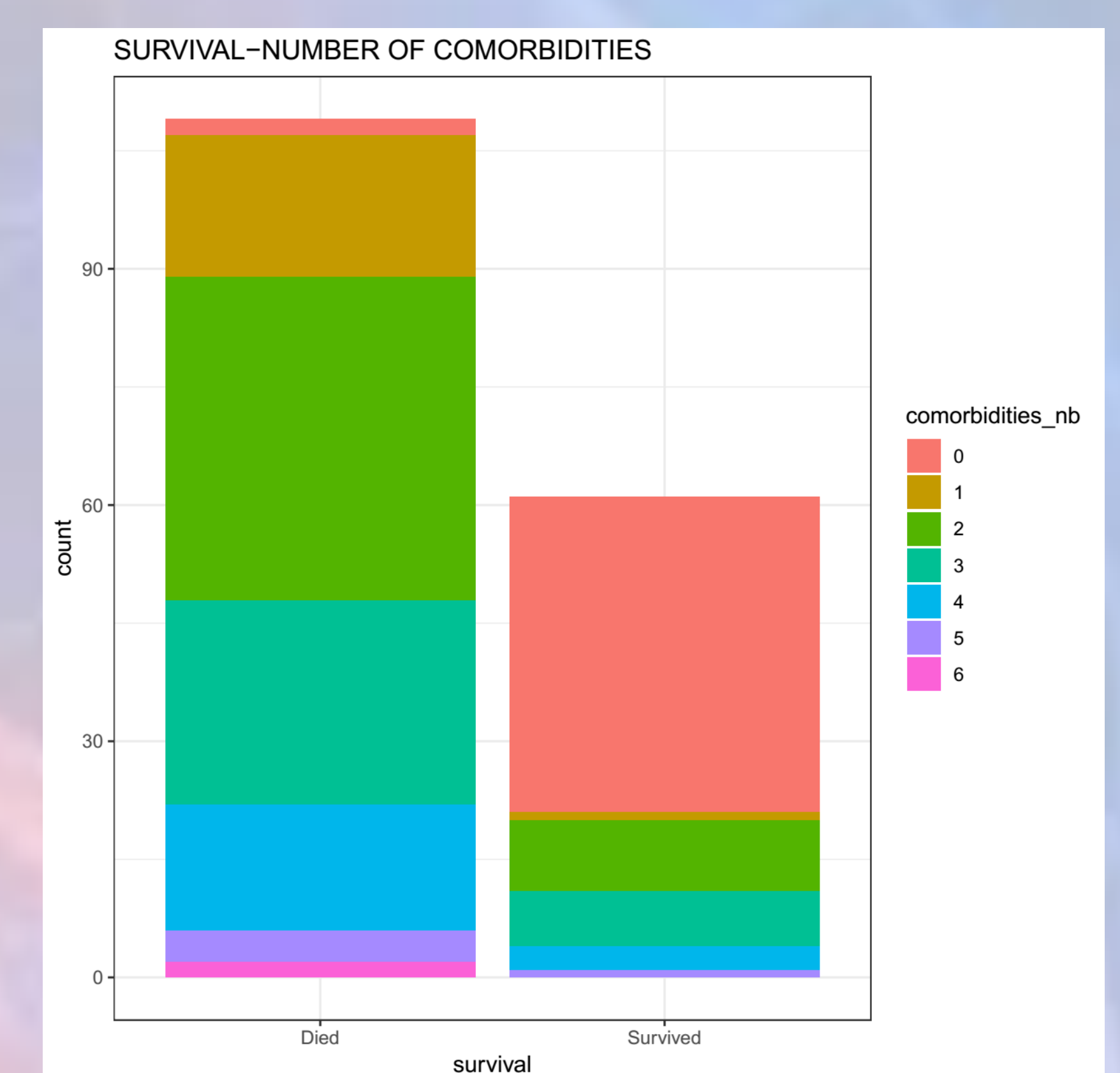
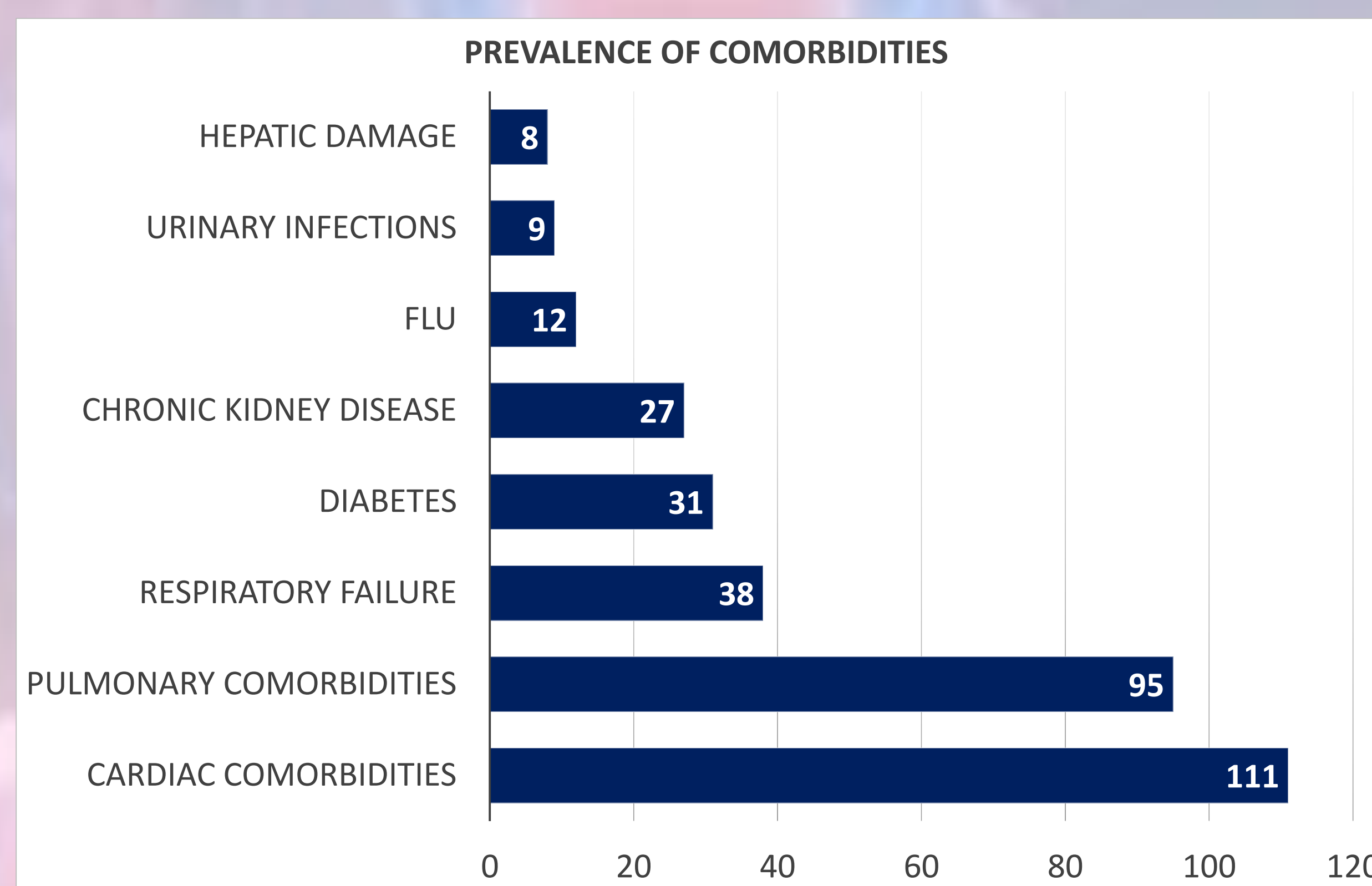
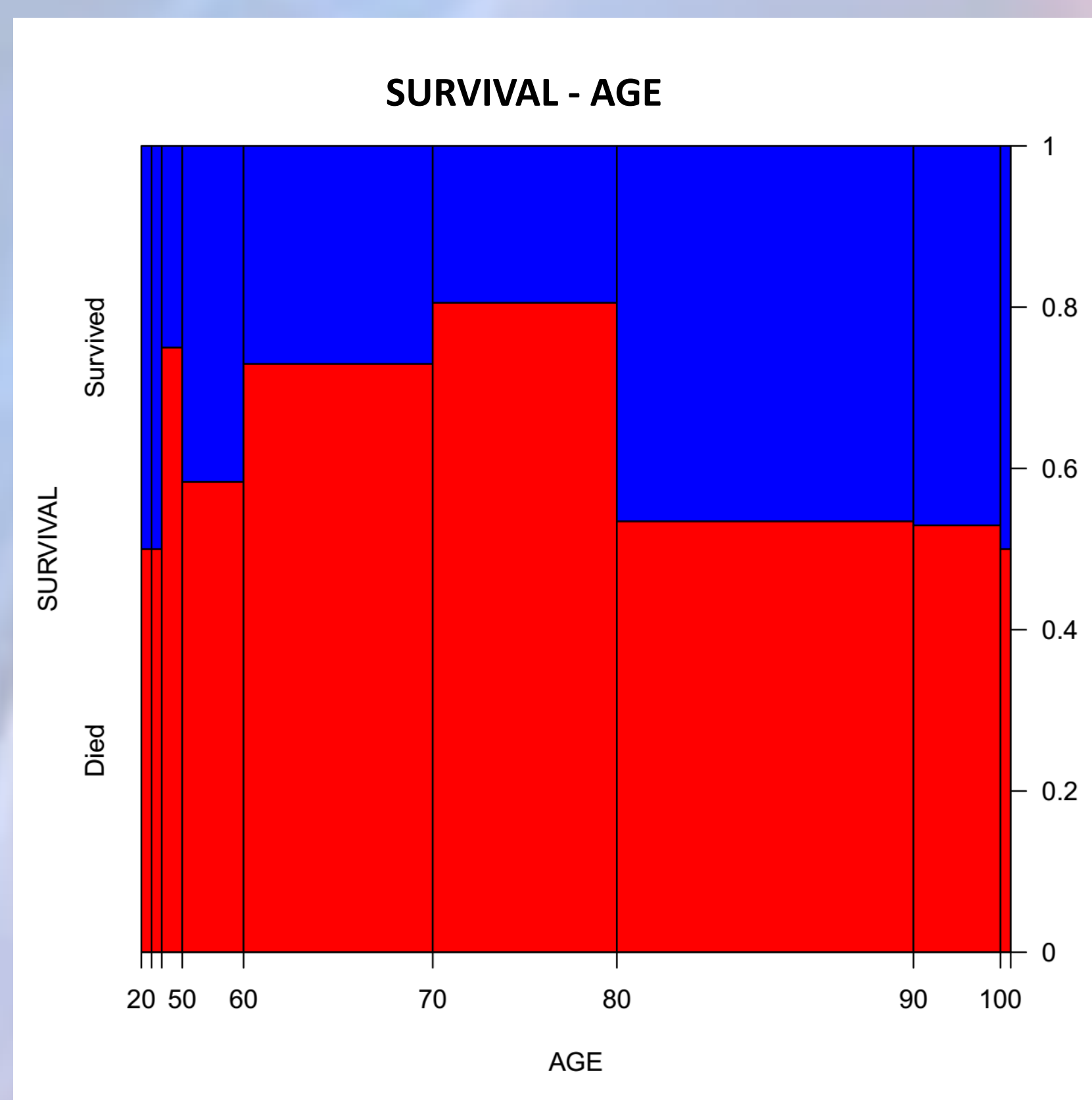
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**BACKGROUND.** Community - acquired pneumonia (CAP) is an infectious disease with major impact on population being an important cause of mortality, morbidity and high-cost health care worldwide. The gravity of the infections is variable, but some strains can cause severe infections with increased mortality correlated with host related factors. The treatment of the disease remains empiric targeting the most likely pathogens commonly involved.

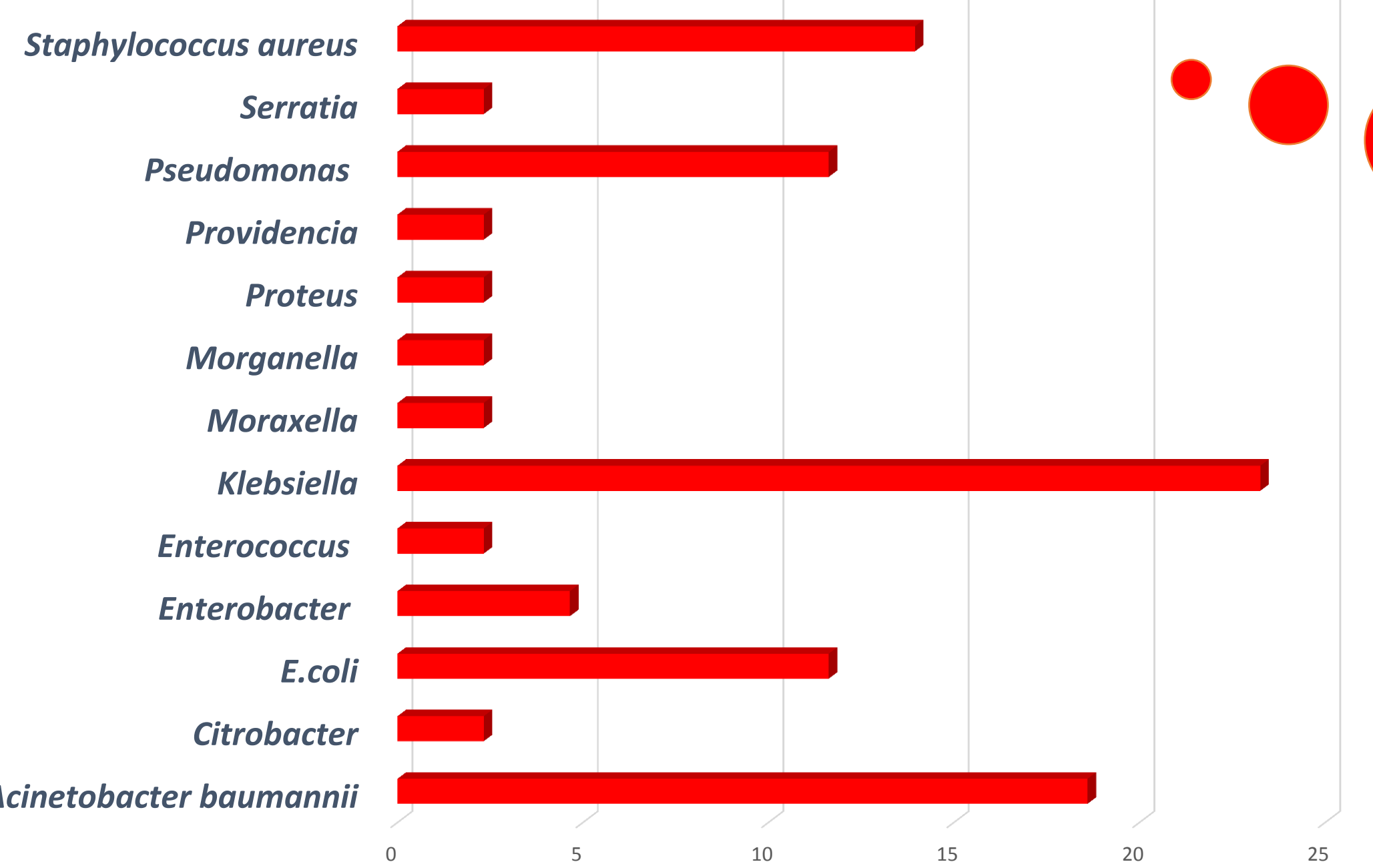
**OBJECTIVE.** The study aims to identify the most common pathogens involved in the community-acquired pneumonia in our hospital, to determine the antibiotic resistant strains and monitor the patient evolution in order to identify the main causes of possible treatment failure and increased mortality.

**MATERIALS AND METHODS.** The one-year study (2017) involved 170 patients hospitalized in the Clinical Emergency Hospital, Bucharest, Romania and diagnosed with community-acquired pneumonia. The study mainly focused on the initiated pharmacotherapy, the situation of prescribing antibiotics: active substances available in the hospital's pharmacy, their associations, changes due to the bacterial resistance.

## RESULTS

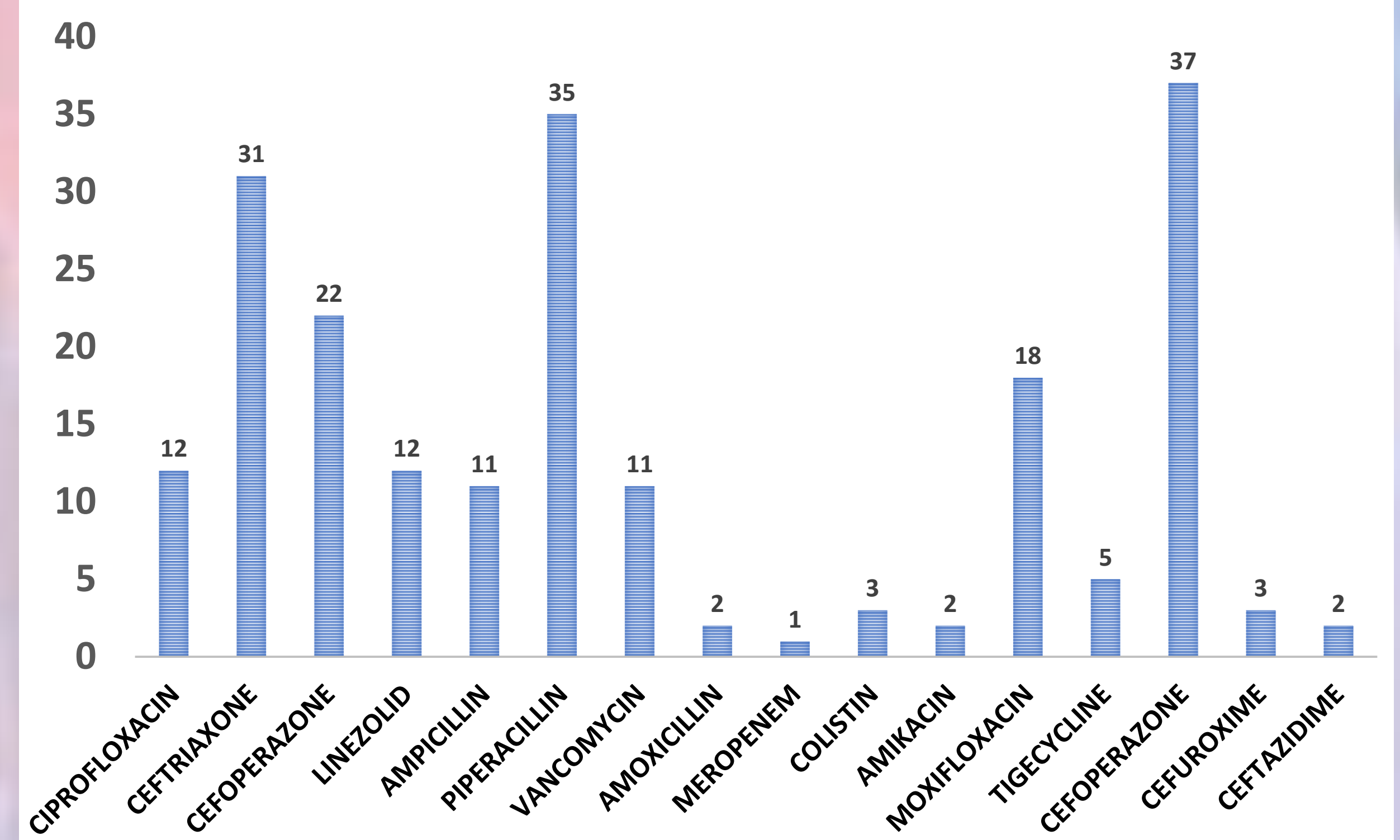


### GERMS PREVALENCE ACCORDING TO THE ANTILOGRAM

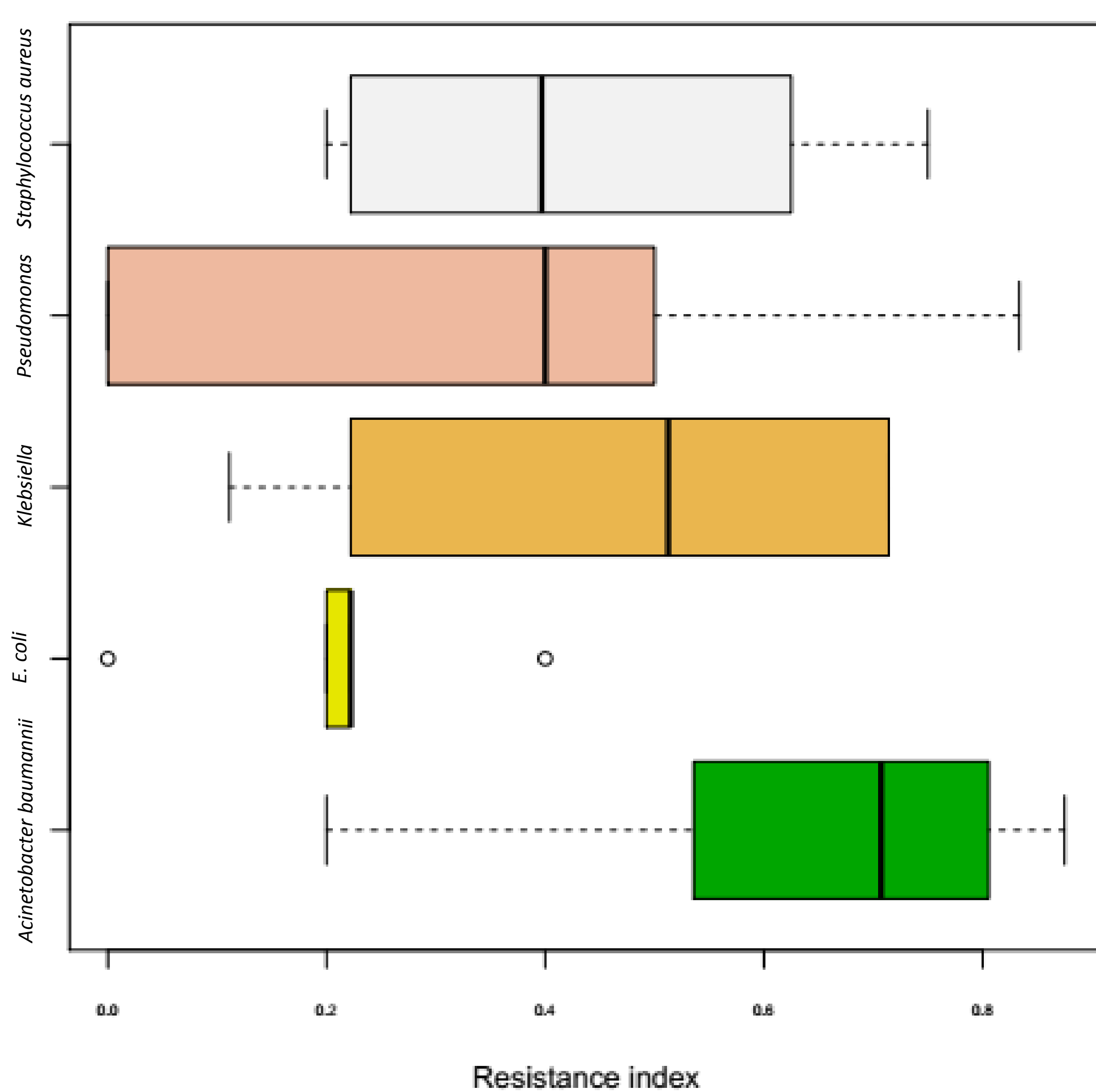


**Expected Germs according to the CAP guidelines:**  
*Streptococcus pneumoniae*  
*Haemophilus influenzae*  
*Chlamydia pneumoniae*  
*Mycoplasma pneumoniae*  
*Legionella sp.*  
*Mycobacterium tuberculosis*

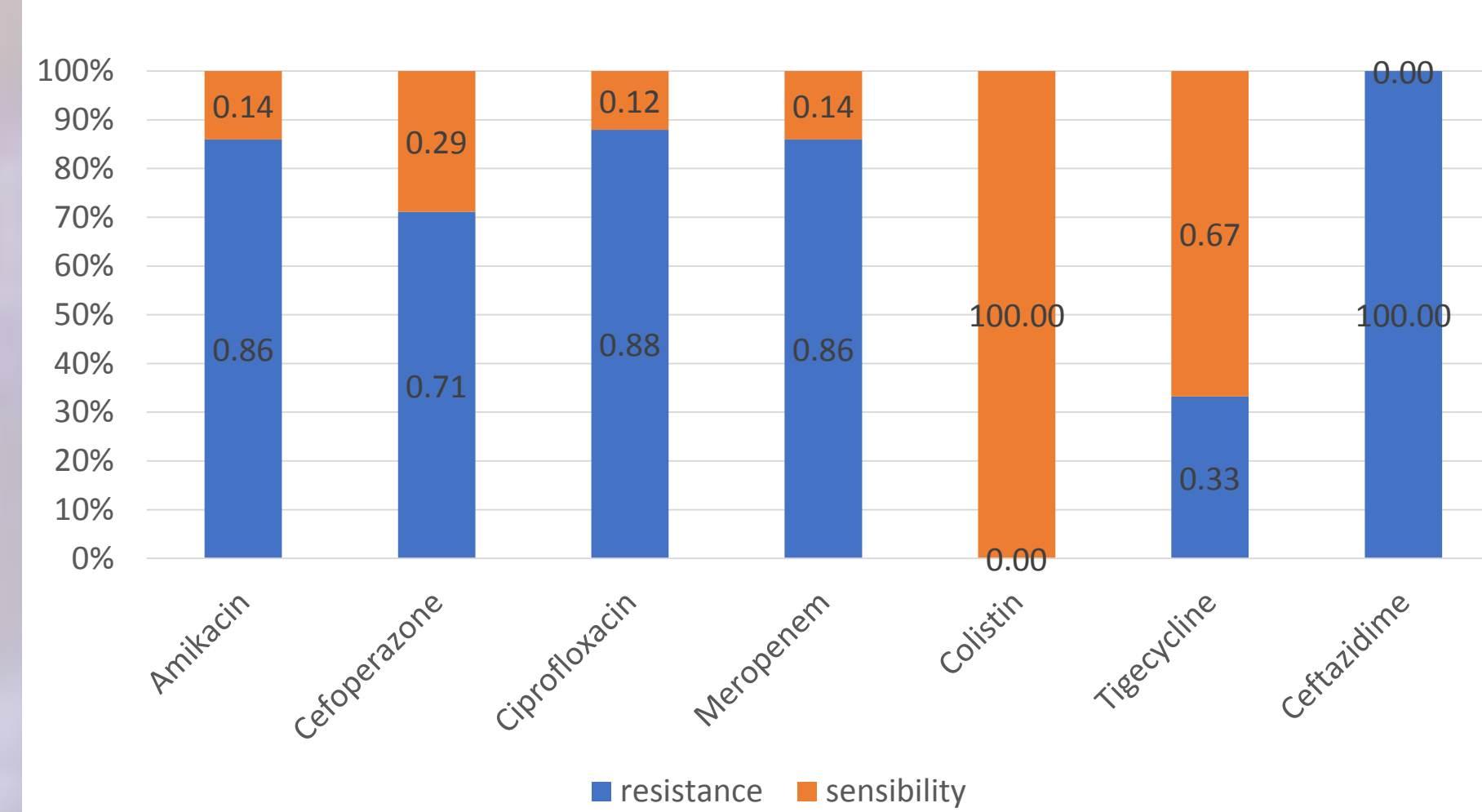
### PRESCRIBED ANTIBIOTICS



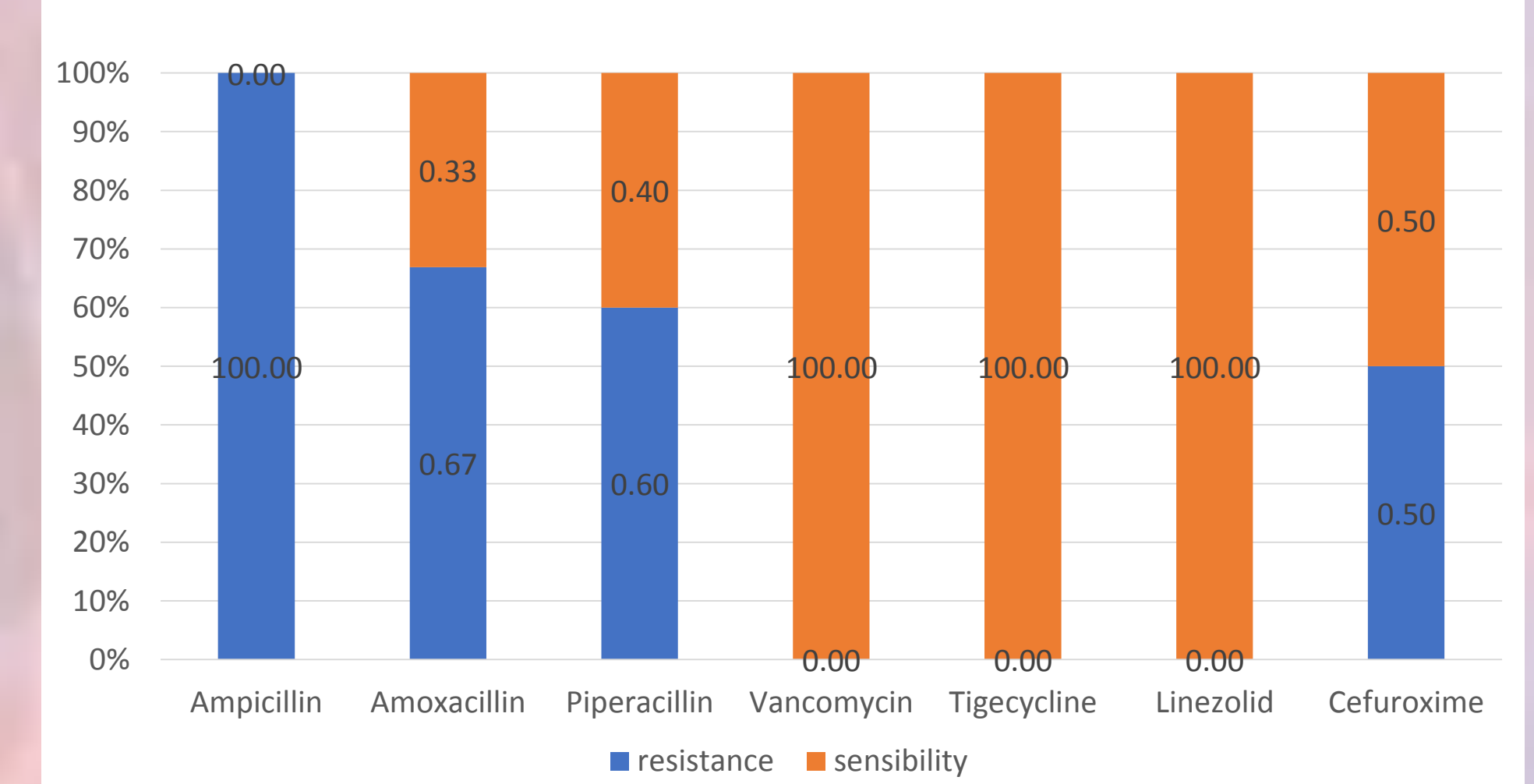
### ANTIBIOTIC RESISTANCE INDEX OF THE MOST IMPORTANT ISOLATES



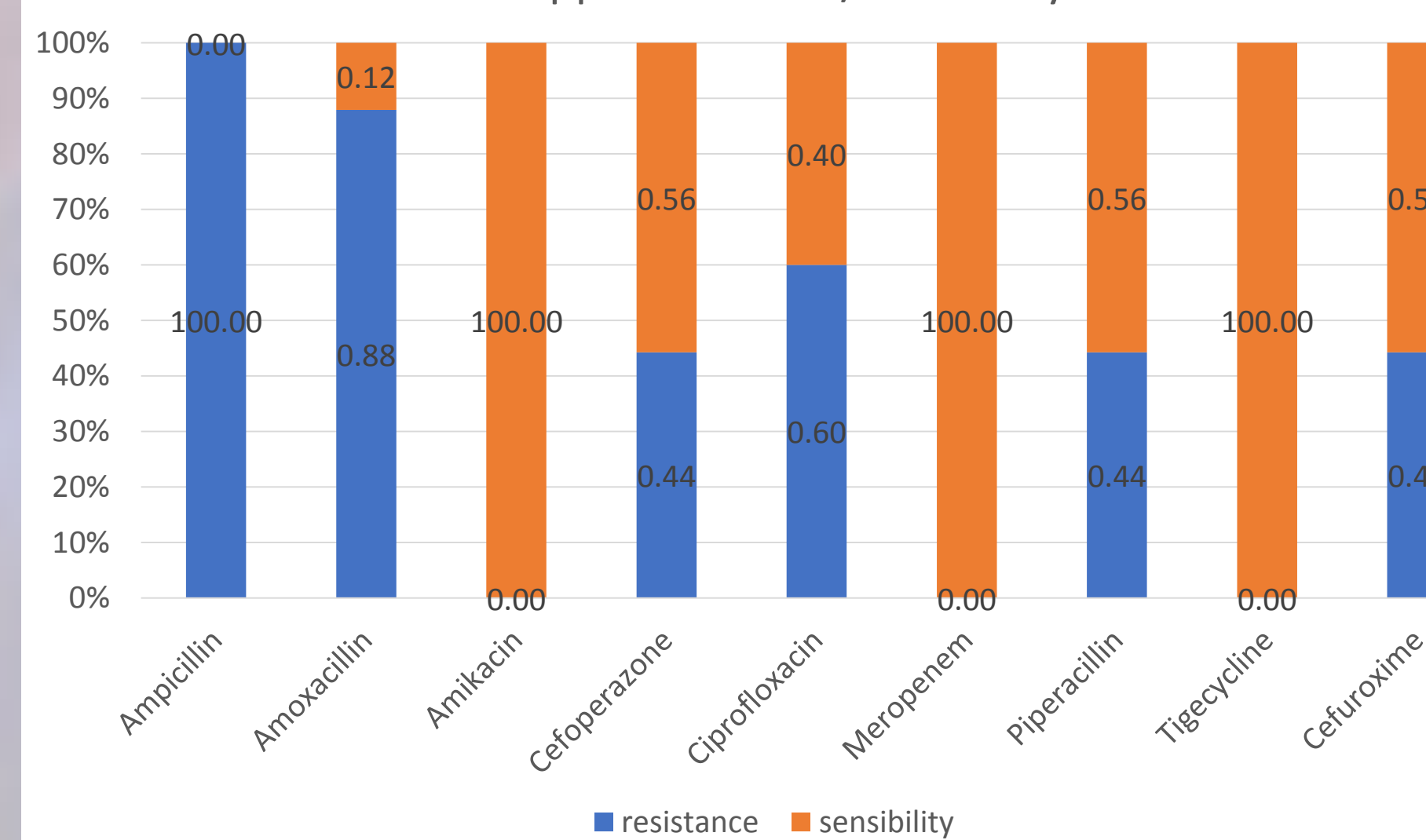
#### Acinetobacter baumannii Resistance/Sensibility Profile



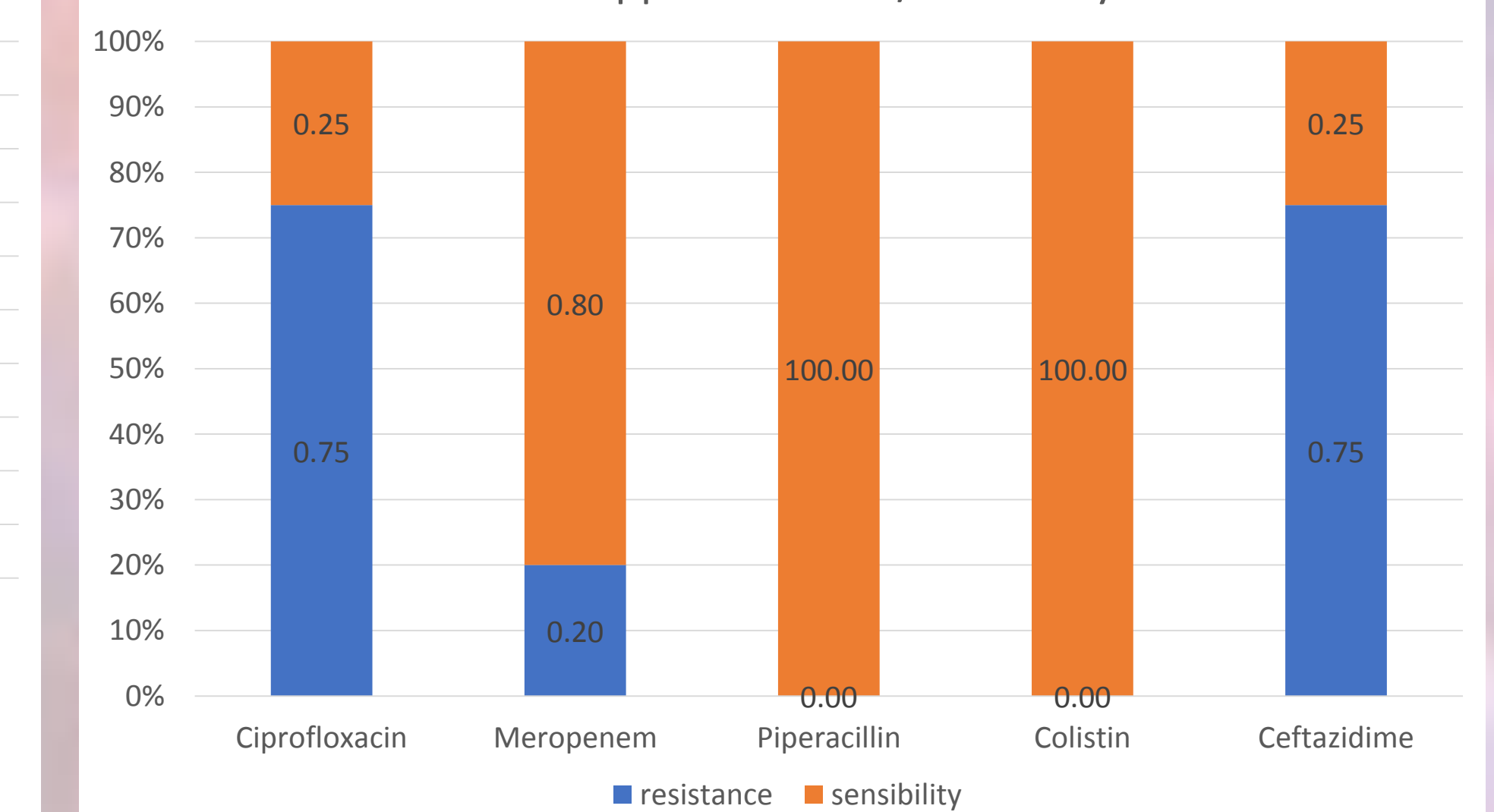
#### Staphylococcus aureus Resistance/Sensibility Profile



#### Klebsiella spp. Resistance/Sensibility Profile



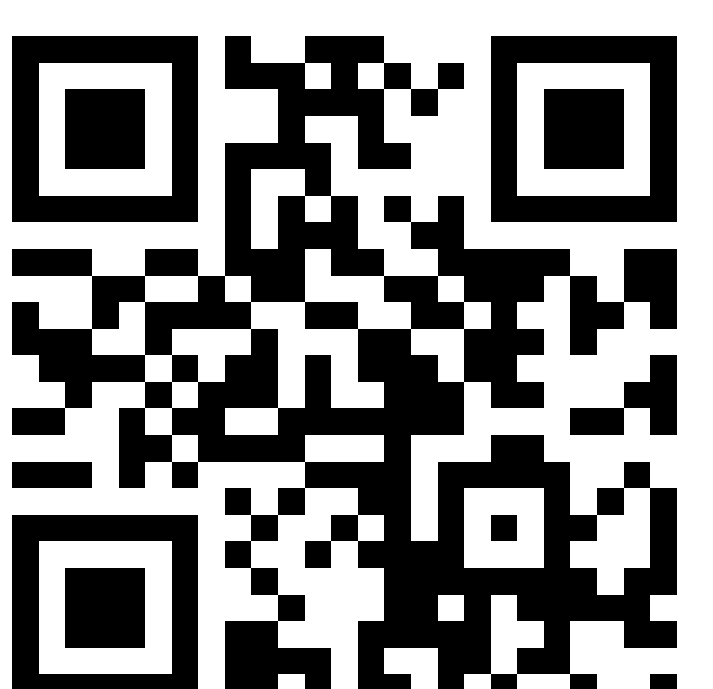
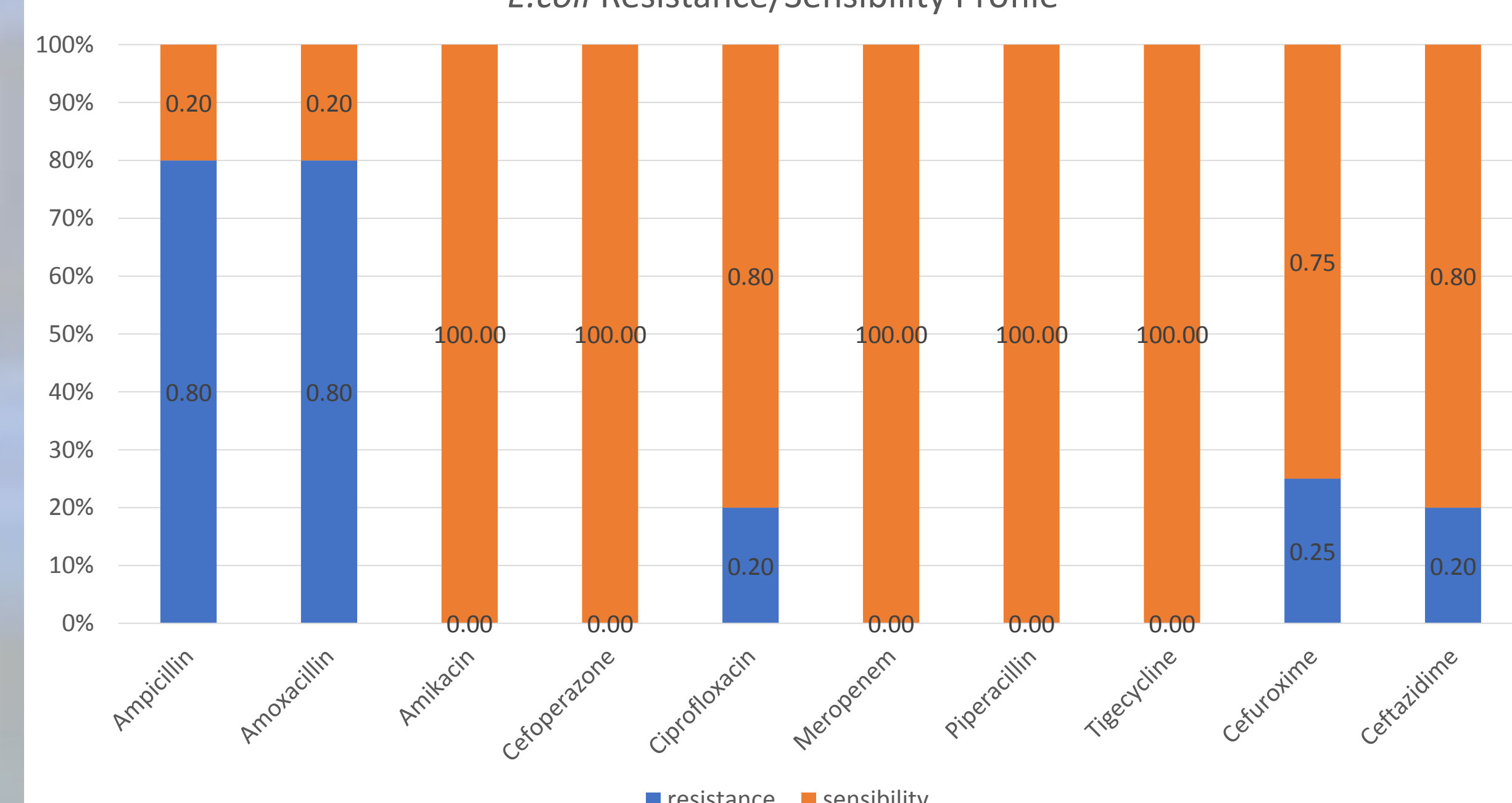
#### Pseudomonas spp. Resistance/Sensibility Profile



## CONCLUSIONS

- Community - acquired pneumonia (CAP) is a disease treatable in early stages if it is correctly diagnosed.
- The antibiotic treatment was empiric established according to the CAP guidelines and targeted the most probable germs.
- E. coli*, *Pseudomonas spp*, *S. aureus*, *A. baumannii*, *Klebsiella spp*. were the most incriminated etiological agents. The infection with these germs is common in nosocomial pneumonia and less encountered in CAP.
- Social-demographic and host-related factors played a critical role in the outcome of the disease and were correlated with some cases of failure response to treatment and increased mortality.

#### E.coli Resistance/Sensibility Profile



<http://www.eahp.eu/24-NP-003>