

# Prevalence and Antimicrobial Resistance of *Staphylococcus aureus* in Rabbits for Consumption: Implications for Food Safety

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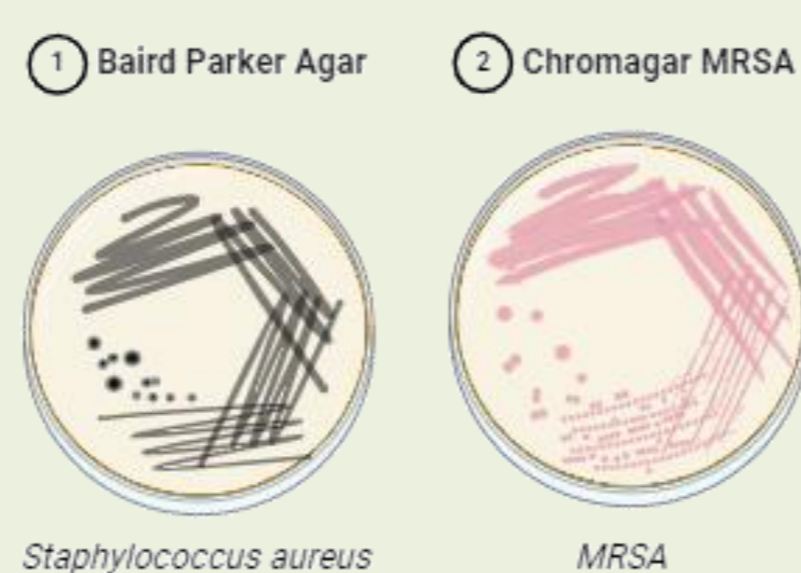
## INTRODUCTION

*Staphylococcus aureus* is a bacterium that is commonly found in humans and animals and can cause a wide variety of infections in both. The development of resistance to multiple antibiotics in this bacterium in animals for consumption, particularly rabbits, represents a major concern in terms of food safety and, consequently, public health. The aim of this study was to investigate the presence of methicillin-sensitive *S. aureus* (MSSA) and methicillin-resistant *S. aureus* (MRSA) in rabbits for consumption and to determine their antimicrobial resistance.

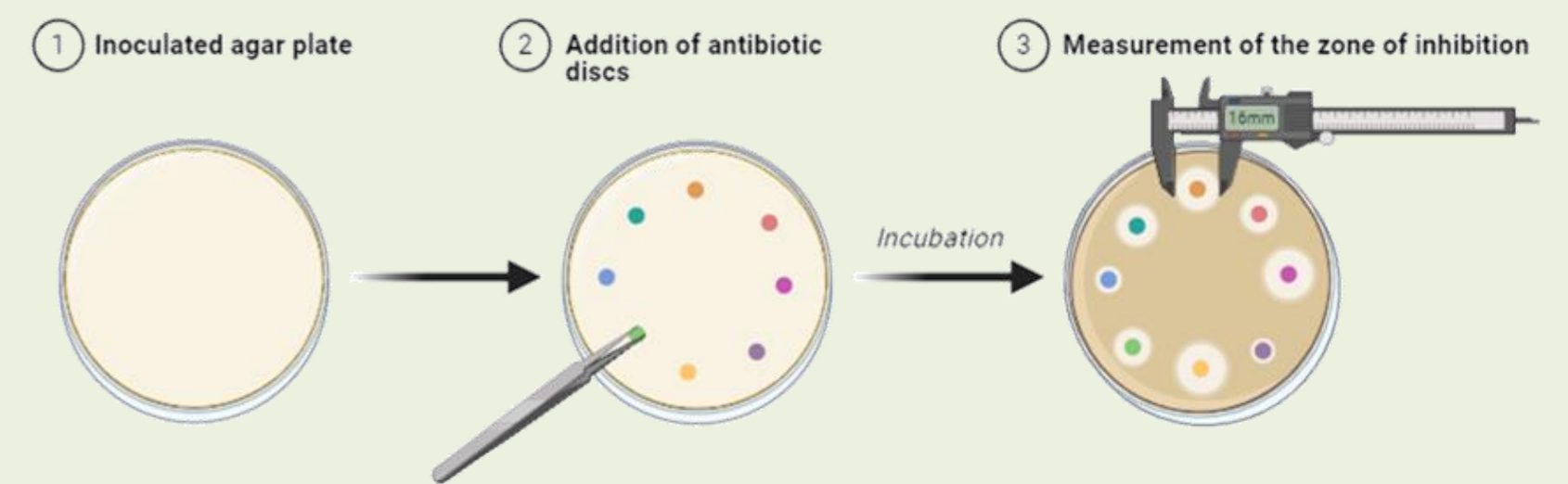
## METHODOLOGY

A total of **65 samples** were collected from **healthy rabbits** from different farms in northern Portugal.

### Differentiate *Staphylococcus aureus* and MRSA



### Susceptibility Test



## RESULTS

### PRESENCE OF MRSA AND MSSA

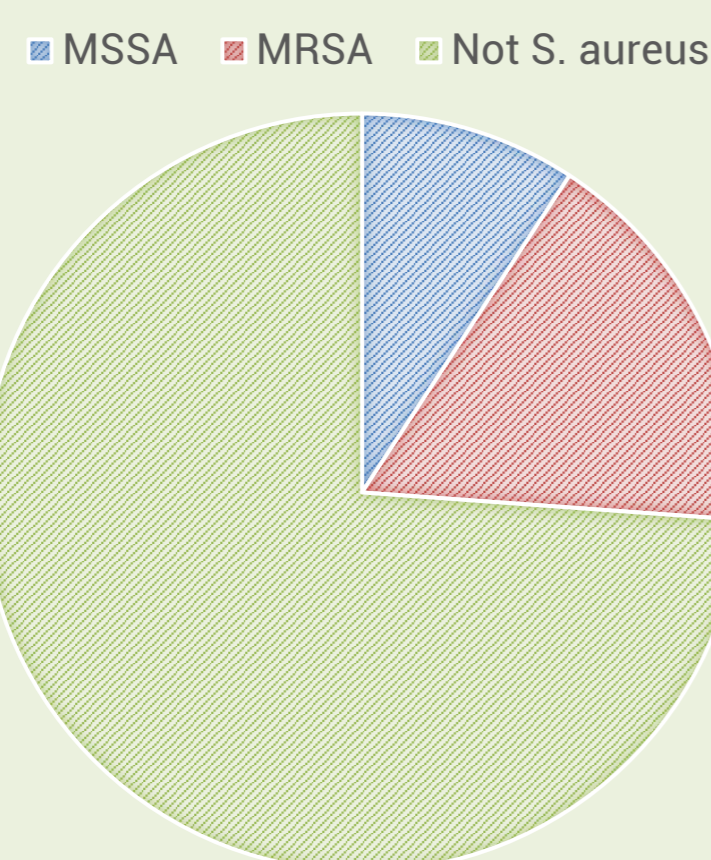


Figure 1. Prevalence of MRSA and MSSA in healthy and diseased rabbits.

### ANTIMICROBIAL RESISTANCE

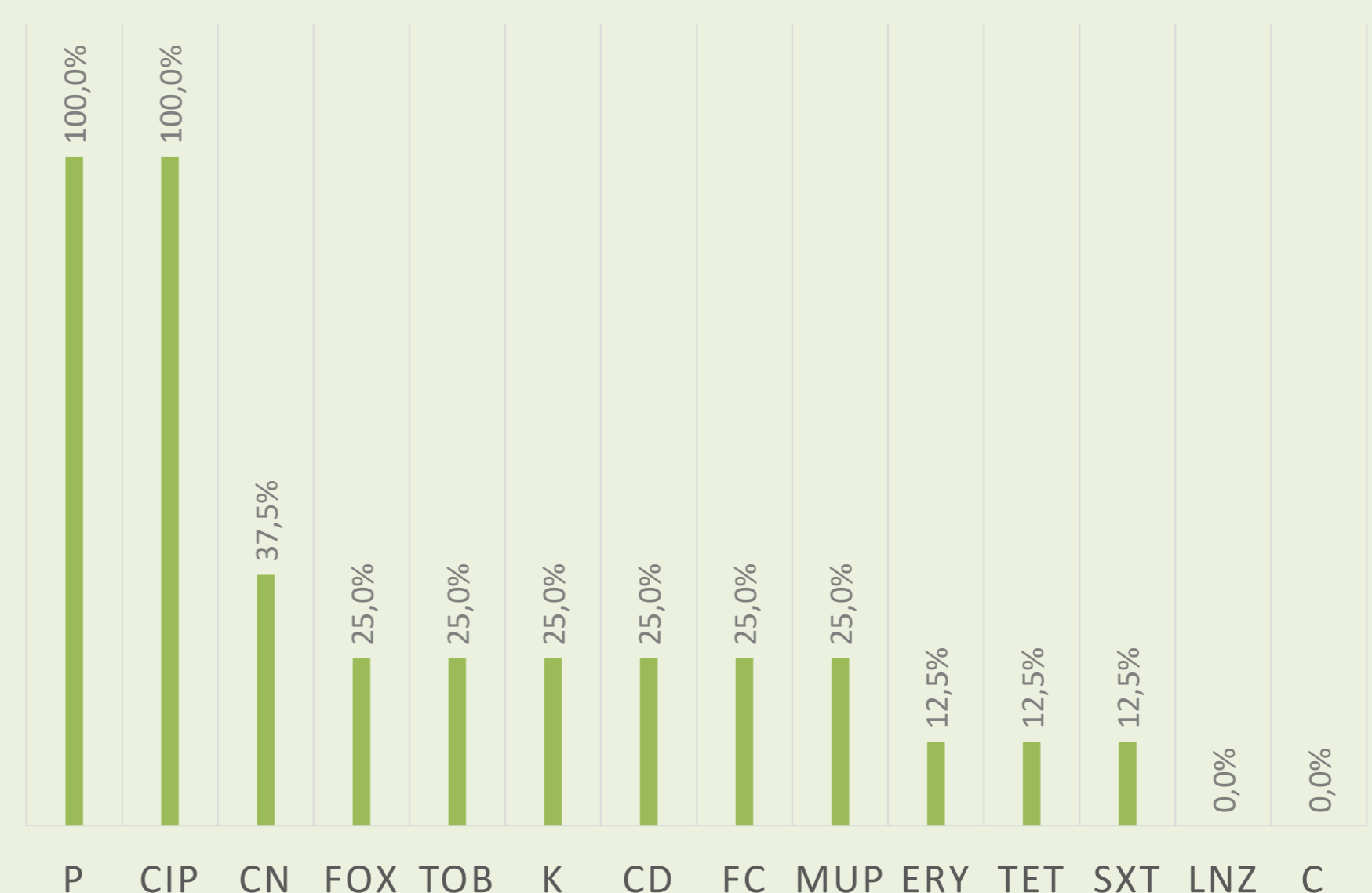


Figure 2. Antimicrobial resistance against 14 different antibiotics. CIP – ciprofloxacin; P – penicillin; CD – clindamycin; FOX – ceftiofur; ERY – erythromycin; TET – tetracycline; TOB – tobramycin; CN – gentamicin; k – kanamycin; FC – fusidic acid; MUP – mupirocin; SXT – trimethoprim-sulfamethoxazole; LNZ – linezolid

65 samples → 8 MRSA Strains → 25% multidrug resistant

## CONCLUSION

Our results highlight the prevalence and antimicrobial resistance of *S. aureus* in rabbits for consumption, emphasizing the potential risks to food safety and public health. Thus, understanding the form of *S. aureus* contamination in rabbit meat is crucial for implementing effective control measures to mitigate the spread of antimicrobial resistance and ensure the safety of the food chain.

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