

**TITLE:** ANTIMICROBIAL SUSCEPTIBILITY OF CONTAGIOUS MASTITIS PATHOGENS

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**ABSTRACT**

Bovine mastitis is one of the main problems of dairy cattle. It is a multifactorial disease, characterized by an inflammatory process of the mammary gland, caused by different types of pathogens of influence of environment and specific factors of each animal. Among the pathogens that cause contagious mastitis, *Staphylococcus aureus*, *Streptococcus* sp. and *Corynebacterium* sp. Thus, a diversity of the agents of contagious mastitis and its crescent resistance to antimicrobials usually used, alert to the need for research on the profile of antimicrobial sensitivity. The present study aimed to trace the antimicrobial susceptibility profile of the main agents that cause contagious bovine mastitis. There were 37 strains of *S. aureus*, 36 strains of *Streptococcus* sp. and 24 strains of *Corynebacterium* sp. isolated from milk samples from animals with mastitis. Antimicrobial sensitivity tests were performed by the disc diffusion method, exposing the microorganisms to these types of antibiotics (amoxicillin 10 mcg, cephalothin 30 µg, enrofloxacin 5 mcg, neomycin 30 mcg, tetracycline 30 mcg, amoxicillin and potassium clavulanate 30 mcg, sulfa trimethoprim 25 µg and ceftiofur 30 mcg). As *S. aureus* strains showed greater sensitivity for the drug ceftiofur in 70.2% and greater resistance to amoxicillin in 59.5%. However, as *Streptococcus* sp. strains showed greater sensitivity for amoxicillin and potassium clavulanate in 88.8% and greater resistance to the drug enrofloxacin in 52.8%. Finally, as *Corynebacterium* sp. strains showed higher sensitivity for amoxicillin and potassium clavulanate and ceftiofur in 95,8% and greater resistance to amoxicillin in 52.8%. Thus, among the antimicrobials tested, ceftiofur was the antimicrobial that presented the best sensitivity profile for the three microorganisms tested. It is concluded that an analysis of the antimicrobial sensitivity should be considered before choosing the antibiotic to be used, since the indiscriminate use of these drugs leads to progressive of bacterial resistance.

**Keywords:** mastitis, *S. aureus*, *Streptococcus* sp, *Corynebacterium* sp, milk, antimicrobial sensitivity.