

**TITLE:** MICROBIOLOGICAL PROFILE AND SUSCEPTIBILITY TO ANTIMICROBIALS OF URINE SAMPLES OF DOGS AND CATS WITH SUSPICION OF CYSTITIS PERFORMED BY THE VETERINARY MEDICAL MICROBIOLOGY LABORATORY OF THE BRASILIA UNIVERSITY - UNB

**INSTITUTION:** FACULTY OF AGRONOMY AND VETERINARY MEDICINE OF THE BRASILIA UNIVERSITY

**AUTHORS:** MENDES, B. F.; CARVALHO, A. S. S.; FARIA, R. S. A; CARVALHO, S. F.; ROUBACH, C. F.; ALBUQUERQUE, T. F.; BOMTEMPO, G. K.; NASCIMENTO, L.G.; OLIVEIRA, C. N.; PERECMANIS, S.

**ABSTRACT:**

In this study, 172 urine samples were analyzed, which were received between January and December 2018, from animals attended at the Small-Sized Animals Veterinary Hospital (HVet-UnB) with clinical suspicion of cystitis. The samples were sent to the Veterinary Medical Microbiology Laboratory of the UnB, in order to determine the microbiological profile and analyze the susceptibility to antimicrobials. After the clinical examination, the samples were forwarded to the Veterinary Medical Microbiology Laboratory of the Brasilia University, properly identified with the animal registration number and transported in 1 mL syringes protected with disposable paper, for microbiological diagnostics and susceptibility to antimicrobials test. In the 172 tested samples, 52 samples presented microbiological growth, which 34 samples were from dogs and 18 from felines. Based on the results, it is evident that the occurrences of most microorganisms were *Staphylococcus spp.* (36%) and *Escherichia coli*. (31%). In canines, the pathogen with a higher prevalence was the *Staphylococcus spp.* (39,39%). Although in felines the pathogen with a higher prevalence was the *Escherichia coli* (50%). The result of the antibiogram exhibited that for *Staphylococcus spp.* present in canines and felines there was resistance to Amoxicillin (83,33%) and Ceftazidime (55,55%). In addition, the *Staphylococcus spp.* presented sensitivity to Amoxicillin + Clavulanate (62,5%), Azithromycin (50%) and Chloramphenicol (50%). To *Escherichia coli*, also present in both animals species, the test demonstrated resistance to Cephalothin (88,89%), Amoxicillin (75%) and Gentamicin (40%). In contrast, it was identified the sensitivity to Norfloxacin (71,43%) and Amikacin (85,71%). This study was important so that the treatment was performed in an efficient way by the clinic, because it indicates which are the most common isolated microorganisms of bacterial cystitis and their respective antimicrobials of choice. Thereby avoiding the development of bacterial resistance by the inappropriate use of the antibiotic therapy.

**Keywords:** cystitis, dogs, cats, antimicrobial resistance