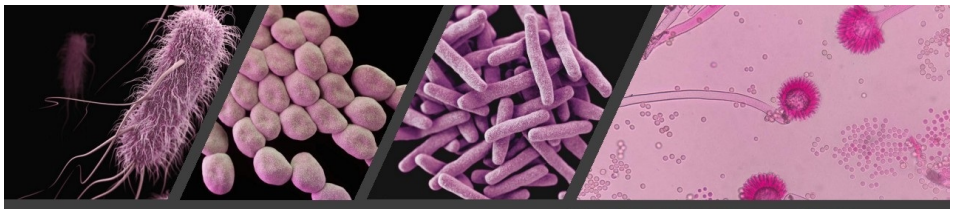

Abstract ID : **51**

First Epidemiological Surveillance of Methicillin-Resistant Staphylococci in a Veterinary Teaching Hospital Using IR Biotyper®

Content

In a global view on Antimicrobial Resistance (AMR), Methicillin-resistant Staphylococci (MRS) are one of the most threatening pathogens in both human and veterinary medicine. The aim of this work was to assess the impact of MRS within a Small Animal Veterinary Teaching Hospital (VTH) in Italy, through a multilevel data collection on clinical, commensal and environmental isolates and a subsequent analysis through Fourier-transform infrared (FTIR) spectroscopy by IR Biotyper®. From May 2021 to May 2023, a total of 81 MRS clinical isolates was recorded, mainly MR *S. pseudintermedius* (MRSP, 81.1%). High resistance rates towards most of the antimicrobials tested were recorded, such as 87.8% for tetracycline and 85.6% for enrofloxacin. MRS prevalence in hospitalized patients' oral flora was 22% (33/150) at admission, while in-hospital acquisition was 19.7% (23/117). The environmental analysis showed a high frequency of MRS detection in the Intensive Care Unit area (29.4%), and in the personnel's shoe soles (85.7%) and the floor (71.4%). Strains typing using IR Biotyper® on 96 selected MRSP isolated showed the presence of three main clusters, one of them detected at all levels, suggesting its endemic presence within the hospital. These findings confirm the importance of MRS in small animal practice, highlighting as a multilevel surveillance program can consent to achieve an exhaustive overview that could lead to tailored measures of infection control.

Keywords

AMR; companion animals; Methicillin-Resistant Staphylococci; MRSP; infrared spectroscopy; surveillance.

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