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Study on antibiotic susceptibility and molecular identification of antibiotic resistance genes of staphylococci isolated from bovine mastitic milk in Algeria

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The study was carried out to investigate the phenotypic and genotypic identification of *in vitro* antimicrobial susceptibility of 21 Staphylococci (10 *Staphylococcus aureus* and 11 Coagulase Negative Staphylococci) isolated from bovine mastitis to 12 antimicrobial drugs frequently using in veterinary medicine in Algeria. Isolates of staphylococci from bovine mastitis were tested for antibiotics with disc-diffusion method according to the National Committee for Clinical Laboratory Standards guidelines in the Mueller-Hinton agar and resistant genes *mecA*, *blaZ*, *aac-aph*, *ermA*, *ermC*, *tetK* and *tetM* were detected by PCR. Staphylococci isolates showed high resistance to penicillin (95.23%), oxacillin (80.95%), clindamycine (80.95%) and erythromycin (76.19%) but no resistance of all these strains was detected for gentamicin. Among 21 isolates of Staphylococci, 20 were found to be methicillin and multidrug resistant. Multidrug resistant strains exhibited several antibiogram patterns (antibiotic I to XIII). The distribution of antibiotic-resistant genes was *mecA* (100%), *tetM* (100) followed by blaZ (42.85%). In the present work, the significant determination was the high prevalence of methicillin-resistant Staphylococci, which were resistant to multiple antibiotics. The finding of methicillin-resistant staphylococci (MRS) from bovine mastitis is the first report in Algeria and revealed the status of resistant isolates in herd that might be helpful in treatment, controlling of resistant strains and for deciding culling of cows.

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## The role of the microbiological surveillance in the definition of the health status of migrant population: Sentinel surveillance data from an asylum seekers centre in Italy

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Migrant populations are represented by group of people forced to migrate by the difficult conditions of life experimented in their country of origin as a consequence of civil wars and political instability. The onset of civil war can led to the complete deterioration of the health infrastructure through the destruction of facilities, the shortage in health care personnel and medicines other than a lack of secure routes and transportation. These conditions joined with the deterioration of immunization programs induced the spread of communicable diseases like measles, poliomyelitis and meningitis through the migrant populations creating a fertile condition for the epidemic spread of unusual infections also within the refugee camps of the hosting country. The refugees' camps are a sort of community where almost 900 migrants and refugees stay for a medium of 15 months and for this reason the monitoring by sentinel surveillance the people arriving so as their health status before and after the entrance in the camps is noteworthy. With this aim we present data from the microbiological surveillance of migrants coming from Syria and Eritrea at their arrival in an asylum seekers centre in Italy to define their health status and to evidence the need for strategic policy of assistance to people that have to travel within Europe facing many kilometers again. In conclusion the microbiological surveillance represents a useful action to understand refugees' health status and to trace unusual microorganisms' movement even carriers of antimicrobial resistance during migrants travelling.

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