208 Research paper

Bacterial resistance to antibiotics - a threat to humanity

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In **Significant Impact Groups:**

AMU reduction strategies \ Legislation and incentives Government

Species targeted: Pigs;Poultry;Dairy;Beef;Sheep;Other;

Age: Not stated;

Summary:

The concept of microbial resistance defines the ability of pathogens to survive and multiply in the presence of antibiotics. The resistant microorganisms are or become "tolerant" to antibiotics. The causes that led to this unprecedented situation are described here: releasing antimicrobials without prescription, unjustified prescription, failure to comply with the dosage, the use of antimicrobials with broad spectrum, prophylactic administration of antimicrobials, non-compliance with withdrawal periods after their administration to animals of economic interest, etc. The mechanisms of resistance occurrence are also described in this article: enzymatic inactivation, alteration or over-expression of the drug target, modification of metabolic pathways, reduced permeability or uptake, enhanced efflux. The role of International organizations such as OIE, WHO, FVO, HMA, EMA is also presented, along with a summary of the guidelines aiming to help national authorities of each state to develop its own strategies, leading to reducing the occurrence and spread of bacterial resistance.

Where to find the original material:

https://agmv.ro/vol-27-nr-2-2017/;

Country: RO