Usage of antimicrobials and occurrence of antimicrobial resistance among bacteria from mink - DTU Orbit (13/05/2019)

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The usage of antimicrobials for treatment of mink and the occurrence of antimicrobial resistance among the most important bacterial pathogens in mink was investigated. The aim of the study was to provide data, which may serve as a basis for the formulation of recommendations for prudent Use of antimicrobials for mink. A total of 164 haemolytic staphylococci, 49 haemolytic streptococci, 39 Pseudomonas aeruginosa, 13 Pasteurella multocida, and 1093 Escherichia coli isolates from Danish mink were included in the Study. A high frequency of resistance among S. intermedius was found for tetracyclines (54.7%), followed by penicillin (21.7%), lincosamides (20.4%), macrolides (19.1%), and spectinomycin (18.5%). Very low frequencies of resistance were recorded for other antimicrobials. The highest frequency among the E. coli isolates was recorded for ampicillin, streptomycin, sulphonamides, and tetracyclines, whereas resistance to other antimicrobials was rare. All P. aeruginosa were sensitive to gentamicin and colistin and sensitive or intermediate to enrofloxacin. whereas most isolates were resistant to all other antimicrobials. All P. multocida and haemolytic streptococci were sensitive to penicillin. There was a steady increase in the use of antimicrobials during the period 2001-2006, the majority of the prescribed amount being extended spectrum penicillins followed by aminoglycosides, sulphonamides with trimethoprim, and macrolides.

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