

PHENOTYPIC RESISTANCE OF *ESCHERICHIA COLI* ISOLATED FROM ANIMALS TO ANTIMICROBIALS

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Summary. The aim of this study to isolate *E. coli* from animal origin and to determine resistance to antimicrobials. Clinical and pathological material from sick and dead animals was collected from different regions of Lithuania. Cattle, pigs and poultry were included in this study. As control *E. coli* isolated from healthy animals was also tested. Disc diffusion method was used for antimicrobial testing according to CLSI standards. Ninety five strains of *E. coli* were tested for antimicrobial resistance. Sixty eight strains were isolated from sick and dead animals and 27 strains were tested as control. It was observed that no one antimicrobial was fully effective against all *E. coli* strains. The highest number of resistant strains had resistance patterns to tetracycline, ampicillin, cephalotin and trimetho/sulpha. Further, one third of tested *E. coli* were multiresistant, i.e. demonstrated resistance to not less than five antimicrobials from twelve tested. Strains that were isolated from sick and dead animals showed higher resistance compared to strains isolated from healthy animals. It should be mentioned that it is very important to select appropriate isolates of clinical importance, when susceptibility testing is performed, because in case of testing non pathogenic strains it could be obtained misleading results.

Key words: antibiotics, antimicrobials, antimicrobial resistance, *E. coli*, multiresistance.