

# PREVALENCE OF ANTIMICROBIAL RESISTANCE AMONG *ESCHERICHIA COLI* IN BELGIAN BROILERS

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## INTRODUCTION

A survey was conducted on 20 Belgian broiler farms to estimate the prevalence of acquired antimicrobial resistance in Gram negative intestinal bacteria at farm level.

## METHODS AND MATERIALS

A total of 1425 individual cloacal samples were taken. The indicator bacterium *Escherichia coli* was recovered out of 1229 of the 1425 samples (= 86.25%). Antimicrobial susceptibility was determined by disk diffusion tests.

## RESULTS

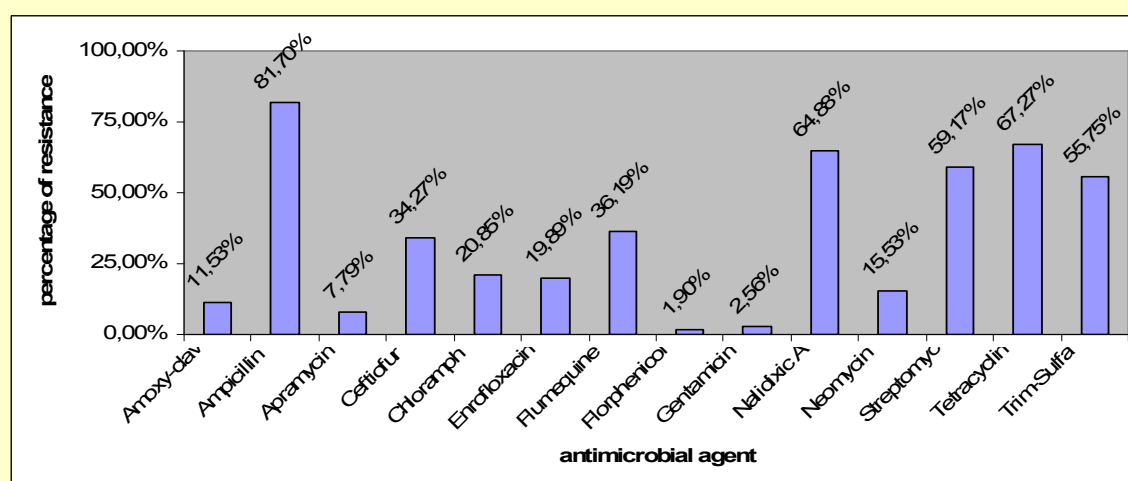


Figure 1. Overall prevalences of acquired resistance

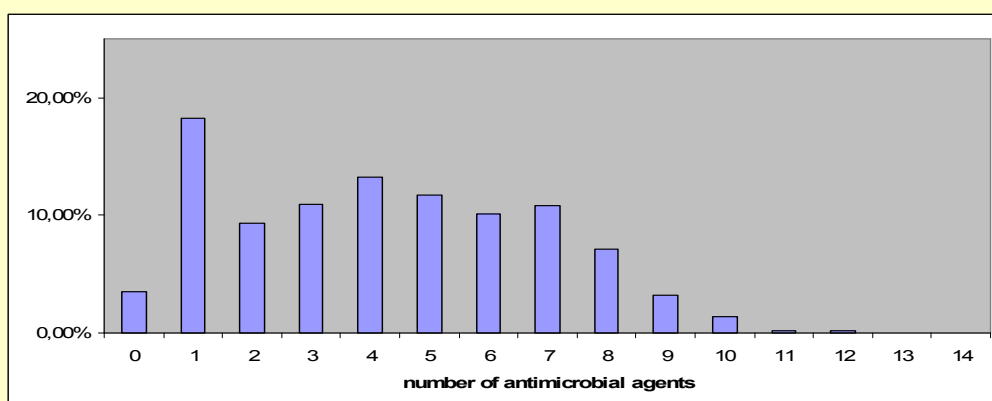
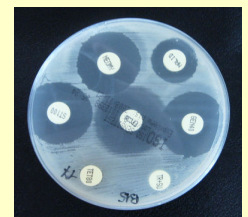


Figure 2. Percentage of *E. coli* isolates resistant to one or more antimicrobials

The prevalences of acquired resistance are shown in Figure 1. In Figure 2, multiresistance is shown. Less than 4% of the strains were fully susceptible. Half of the strains were resistant to at least 4 different antimicrobials, indicating a high level of multiresistance.



## DISCUSSION

Our results show a persistence of resistance against chloramphenicol, an antibiotic not in use anymore since mid nineties. Resistance against frequently used antimicrobials like ampicillin and tetracycline is very high. What worries most is the **emergence of resistance against newer and high-potential antimicrobials**. A remarkable finding in this study is the **high level of ceftiofur resistance**, since no cephalosporins are currently registered for use in poultry in the EU. We could not yet find any reason for this high level of resistance, which was mainly associated with **multiresistance**. These data show that further **follow up of antimicrobial resistance in poultry is imperative**.

## ACKNOWLEDGEMENTS

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In cooperation with:

