

Antibiotic resistance and plasmid carriage among *Escherichia coli* isolates from chicken meat in Malaysia

ABSTRACT

Escherichia coli isolates from 131 raw chicken meat samples were tested for susceptibility to 12 antibiotics. Plasmids were isolated from many samples and their DNA molecular weight calculated. An 81.7% plasmid occurrence rate was observed among the isolates, ranging from 0 to 8 in number and with sizes from 1.2 to 118.6 MDa. Plasmids were detected in 93.8% of *E. coli* isolates resistant to all 12 antibiotics, and in 90.5% of *E. coli* isolates resistant to 11. Three (2.8%) isolates harboured 8 plasmids and were resistant to all 12 antibiotics. Antibiotic resistant genes in bacteria are usually carried in extrachromosomal DNA and it is postulated that *E. coli* with a high number of plasmids possesses wider resistance to antibiotics.

Keyword: Antibiotic resistant; Plasmid carriage; *Escherichia coli*; Chicken meat