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## Antimicrobial resistance in clinical *Escherichia coli* isolated from companion animals in Australia

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### Highlights

- Resistance to critically important antimicrobials registered in human medicine such as carbapenems and amikacin are rare among clinical *E. coli* isolated (n=883) from dogs, cats and horses in Australia
- Frequency of resistance to critically important antimicrobials registered for veterinary use in dog isolates was classified as low for fluoroquinolones (9.1%-9.3%) and moderate for 3rd generation cephalosporins (10.1%-10.9%)
- Frequency of resistance to critically important antimicrobials registered for veterinary use was low among clinical *E. coli* isolates from cats (fluoroquinolones 3.2%-5%; 3rd generation cephalosporins (5.6%-6.5%).
- Chronic and/or recurrent disease and prior antimicrobial treatments were the main risk factors for the isolation of multi-drug resistant (MDR) *E. coli* from urinary tract infections in both dogs and cats.

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