

# Understanding the Culture of Antimicrobial Prescribing Behaviours in Agriculture: A Mixed Method Study of UK Pig Veterinary Surgeons



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## Background and Aims

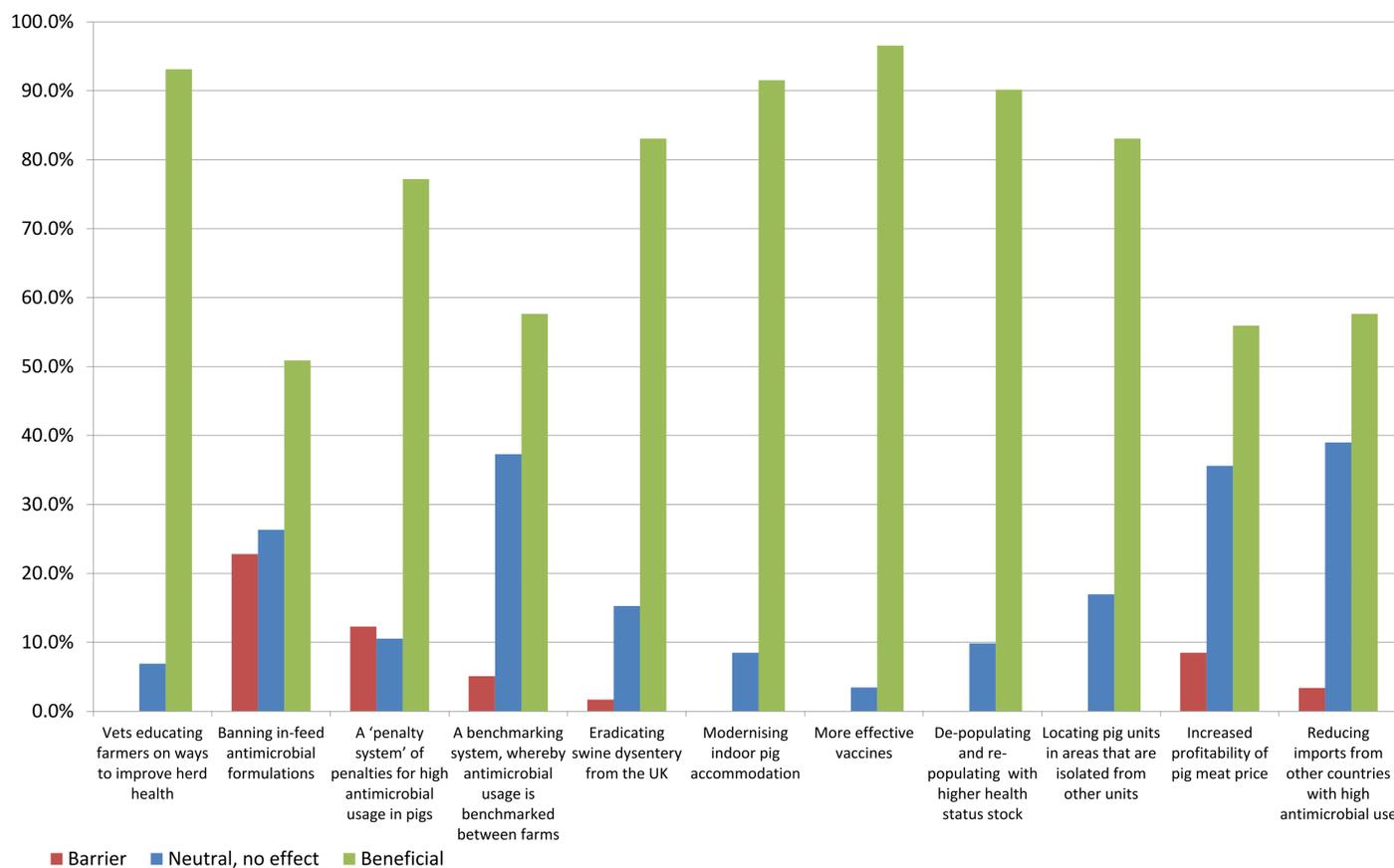
The use of antimicrobials in food producing animals has been linked with the emergence of antimicrobial resistance in bacterial populations, with consequences for animal and public health. This study explored the underpinning drivers, motivators and reasoning behind prescribing decisions made by veterinary surgeons working in the UK pig industry.

## Methods

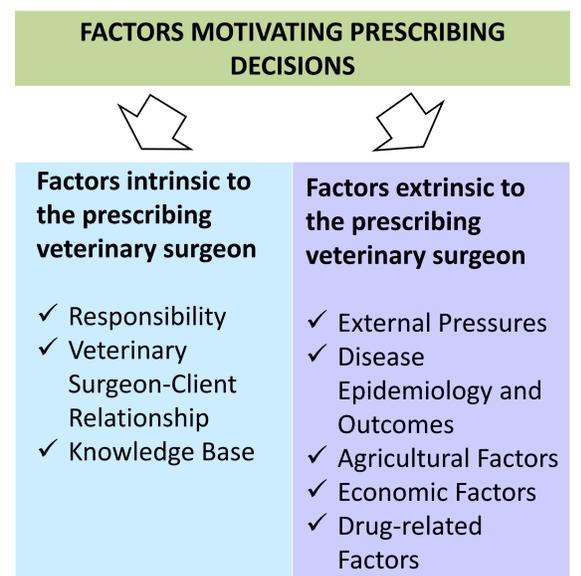
A mixed methods approach was employed through qualitative in-depth interviews with purposively selected pig veterinarians (n=21) followed by a cross-sectional questionnaire of veterinary surgeons across the UK that treated pigs (n=61).

## Results

Potential measures that greater than 50 percent of veterinary surgeons considered to be beneficial in reducing the total amount of antimicrobials used in pigs in the UK



Major themes identified as influencing antimicrobial prescribing behaviours in qualitative interviews with pig veterinary surgeons



## Factors intrinsic to the veterinary surgeon

### Conflicting farmer-veterinary surgeon relationships

- ✓ Veterinary surgeons recognised farmer pressure, farmers perceived a mutual relationship

### Responsibility

- ✓ Veterinary surgeons and farmers perceived themselves to use antimicrobials in a prudent manner BUT did consider others may be less responsible in their antimicrobial usage
- ✓ Antimicrobial resistance was not considered to be a major problem for the health of pigs in the UK
- ✓ Perceived as an issue for other pig practitioners, in other species and in human medicine

## Factors extrinsic to the veterinary surgeon

### Management and economics

- ✓ Health status and management are key to disease prevention
- ✓ Management and facility improvements are important but may not be economically viable for many pig units
- ✓ Prophylactic antimicrobial use justified BUT opinion is that antimicrobials are on occasion 'used as a management tool'

### Drug-related factors

- ✓ Social responsibility to reserve the use of critically important antimicrobials
- ✓ Conflict between prescribing practices and aspirational practices
- ✓ Lack of alternatives to non-critically important antimicrobials

## Conclusions

The drivers behind prescribing decisions by veterinary surgeons were complex and diverse. A combination of education, improving communication between veterinary surgeons and farmers, and changes in regulations, in farm management and in consumer/retailer demands may all be needed to ensure that antimicrobial prescribing is optimal and to achieve significant reductions in use.

