

## Background

- Antimicrobial resistance (AMR) is both an animal health and public health problem.
- Understanding the extent and patterns of AMs usage in farm animal practice is crucial for monitoring antimicrobials (AMs) usage and policy making to tackle AMR.
- Few studies in the UK have used the prescribing records from the farmers' veterinary practices to estimate the AM usage at farm level. <sup>1,2</sup>

## Objectives

### Quantitative study

- To quantify and describe AM usage in farm animal veterinary practices.
- To estimate the risk factors for high AM usage and high usage of the highest priority critically important antimicrobials (HP-CIA) in farm animals.



### Qualitative study

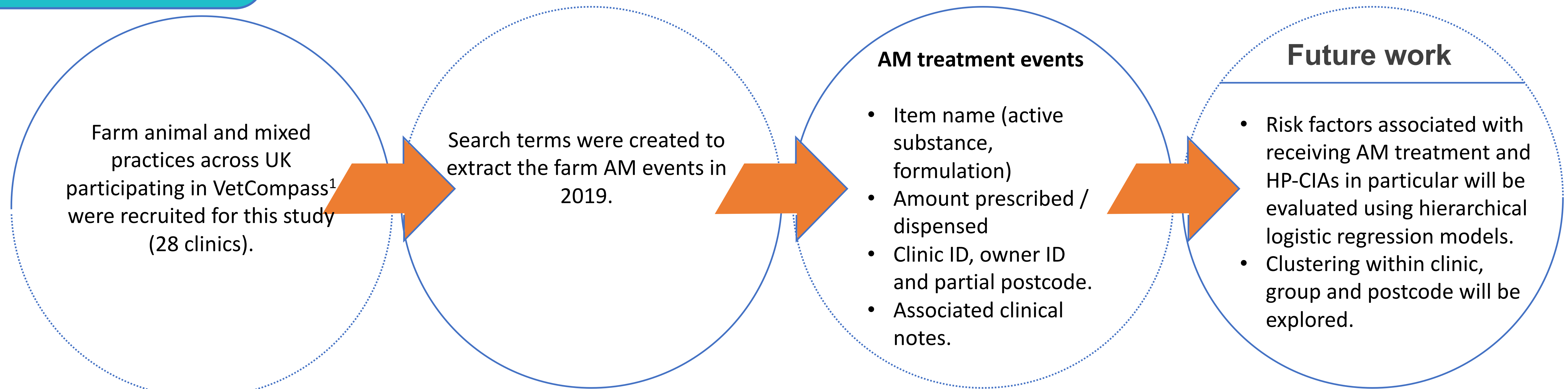


## Research Question

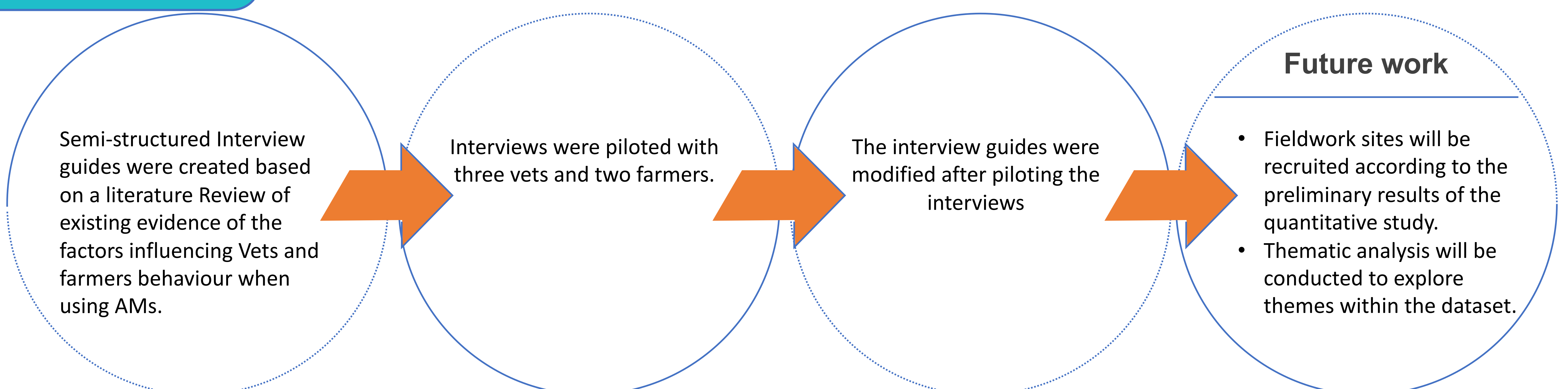
What are the patterns for AM usage in farm and mixed practices and what are the drivers behind AM usage by vets and farmers?

## Methods

### VetCompass study



### Qualitative study



### Quantitative study

- 117,432 farm AM events were extracted from the treatment records of the 28 clinics. AM usage in farm practices ranged from 21,987 to 172 AM events with a mean of 4194 AM events.
- 21,372/117,432 (18.2%) events were HP-CIA. The usage of HP-CIA in farm practices ranged from (24.3%) to (4.8%) with a mean of (14.8%), of the total AM events per clinic.
- Injection was the most common route of administration 93,837 (79.7%), followed by intramammary 14,026 (11.9%).

### Qualitative study

- The findings of the piloted interviews are as follows:
- Farmers' pressure, and cost of AM treatment were mentioned by vets to be influencing their prescribing decision.
- The seven point plan<sup>4</sup> set by the British Veterinary association was the veterinarians' source of information for responsible use of AMs.
- Farmers and vets were aware of the UK reduction targets set by RUMA.
- Farmers emphasised that the discussion between farmers and their vets would help to promote responsible use of AMs.

## References

1. Davies, P., Remnant, J. G., Green, M. J., Gascoigne, E., Gibbon, N., Hyde, R., Porteous, J. R., Schubert, K., Lovatt, F. and Corbishley, A. (2017) 'Quantitative analysis of antibiotic usage in British sheep flocks', *Vet Rec*, 181(19), 511.
2. Hyde, R., Green, M., Remnant, J., Down, P., Huxley, J., Davies, P., Hudson, C. and Breen, J. (2017) 'Tool to measure antimicrobial use on farms', *Veterinary Record*, 180(7), 183-183.
3. VETCOMPASS. (2017). *VetCompass: Health surveillance for UK companion animals* [Online]. London: RVC Electronic Media Unit. Available: <http://www.rvc.ac.uk/VetCOMPASS/> [Accessed January 24th 2017].
4. BVA (2019). *Responsible use of antimicrobials in veterinary practice 7-point plan*.



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