

CENTRE FOR EVIDENCE-BASED VETERINARY MEDICINE
Putting research into practice

Veterinary consultations: Reaching a diagnosis



The University of Nottingham

UNITED KINGDOM · CHINA · MALAYSIA

Robinson, N.J., Dean, R.S., Cobb, M. & Brennan, M.L.
Centre for Evidence-based Veterinary Medicine, School of Veterinary Medicine
and Science, The University of Nottingham, UK
Email: natalie.robinson@nottingham.ac.uk

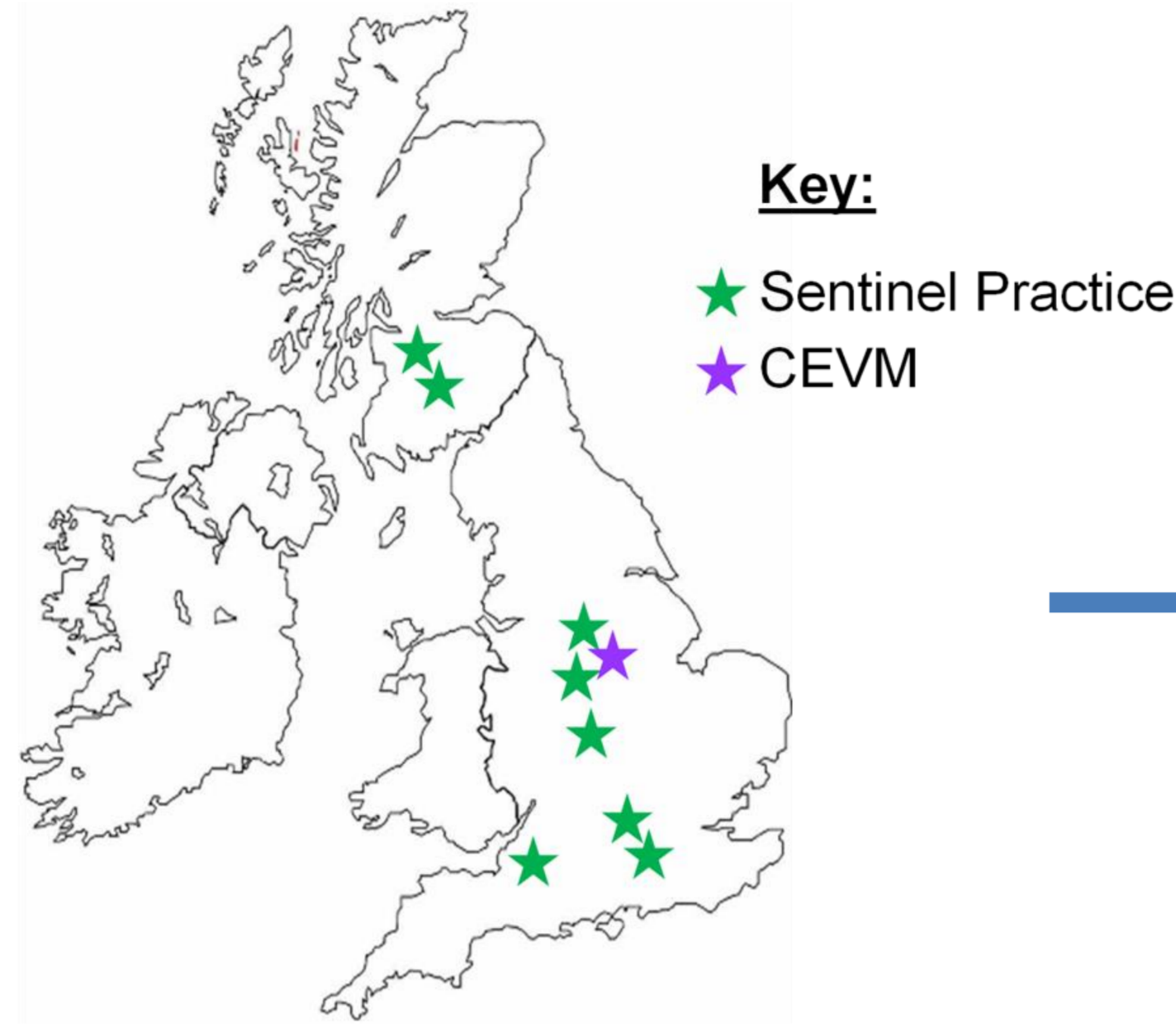


Background: A diagnosis has been defined as 'the label given to a disease with certain clinical or pathological characteristics applicable to a particular case' (Radostits et al., 2000). Previous research found a diagnosis was only recorded in a third of first opinion small animal consultations (Lund et al., 1999); the factors associated with reaching a diagnosis are currently unknown.

Aim: To examine the factors associated with making a diagnosis during small animal veterinary consultations



Development of a data collection tool for use during direct observation of consults



Observation of small animal consults in 8 sentinel practices

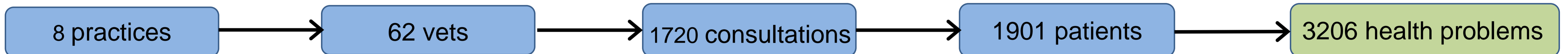
Data gathered on:

- Patient signalment
- All health problems discussed
- Definitions developed for diagnosis type
- One diagnosis type per problem: Definitive, Working, Presumed, Open or Previous

Key results:

- Definitive diagnosis in 20.6% health problems
- Lower for health problems in rabbits
- Lower for problems raised by the owner
- Lower for endocrine, neurological and behavioural problems

Structure of the dataset



Analysis

- Clustering at level of practice, vet, consultation and patient - but crossover between consult/patient levels (some patients have >1 consult)
- Plan is to develop a multi-level model with diagnosis as the outcome variable (Table 1) and various explanatory variables (Figure 1)
- Plan is to start with a 2 level model with patients at level 2, problems at level 1, and build from here

Table 1. Possible outcome variables for the multi-level model

Outcome variable	Format	Advantages	Disadvantages
Nominal	As above	Data already in this form	Difficulty interpreting model
Ordinal	Order from open to definitive diagnosis	Reflects order of diagnosis types	Previous diagnosis doesn't fit
Binary	Diagnosis /no diagnosis	Simpler to perform	Loss of data complexity, how to define diagnosis

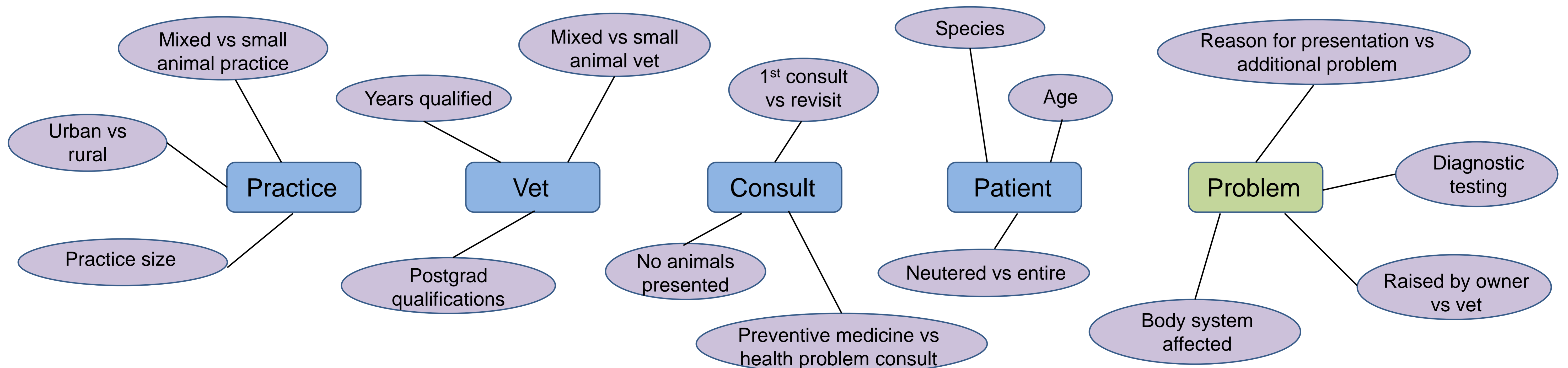


Figure 1. Circles show possible explanatory variables for inclusion in the model

Relevance

Understanding the factors associated with making a diagnosis may have implications for directing future research and veterinary education. Evidence is needed to support veterinary decision-making prior to reaching a definitive diagnosis as well as after making a diagnosis, but the former may be particularly important for cases where a diagnosis is often not reached. It may be that for some aspects of veterinary medicine, a focus on the approach to common clinical signs, rather than a focus on management and treatment of specific conditions, will prove more relevant to practitioners in the consultation room.

Acknowledgements

Many thanks to the sentinel practices and their clients and patients for their involvement in the study. The Centre for Evidence-based Veterinary Medicine is supported by an unrestricted grant from Novartis Animal Health and The University of Nottingham.

References

- Lund et al. (1999) Health status and population characteristics of dogs and cats examined at private veterinary practices in the United States. *JAVMA*, 214: 1336
Radostits et al. (2000) Making a diagnosis. In *Veterinary Clinical Examination and Diagnosis*. 1st Ed. London: Elsevier

