

CENTRE FOR EVIDENCE-BASED  
VETERINARY MEDICINE  
Putting research into practice

# Veterinary consultations: Reaching a diagnosis

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**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



Questionnaire

1. Were multiple animals presented? Complete a separate questionnaire for each animal. ☐ Yes ☐ No

2. Select the best description of the type of case from the following options:

☐ First Consult ☐ Recheck ☐ Elective Euth ☐ Recurrent ☐ 2nd Op ☐ Ongoing: Acute ☐ Ongoing: Chronic ☐ Preop Med ☐ Admitted/Discharge ☐ Other

3. Which species was presented during the consult?

☐ dog ☐ cat ☐ rabbit ☐ ferret ☐ other

☐ rodent ☐ reptile

4. What was the animal's breed?

Records: ☐ Vet: ☐ Owner: ☐ Problem 1: ☐ Problem 2: ☐ Problem 3: ☐ Problem 4:

5. What was the clinical signs?

Related: ☐ Yes ☐ No ☐ N/A ☐ Yes ☐ No ☐ N/A ☐ Yes ☐ No ☐ N/A ☐ Yes ☐ No ☐ N/A

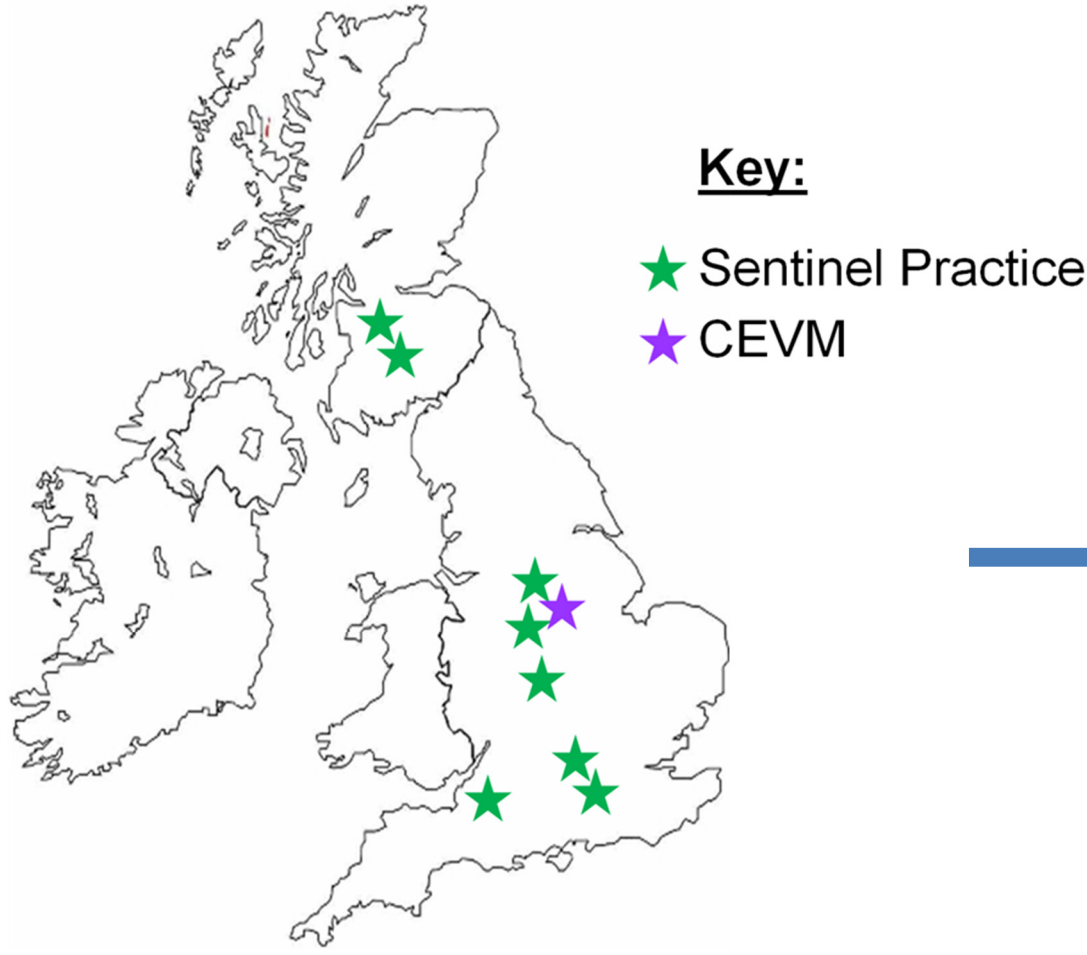
6. What was the findings?

Records: ☐ Owner: ☐ Vet: ☐ Problem 1: ☐ Problem 2: ☐ Problem 3: ☐ Problem 4:

7. What was the body system affected?

8. What was the diagnosis?

9. What was the outcome?



## 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

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

Observation of small animal consults in 8 sentinel practices

## 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

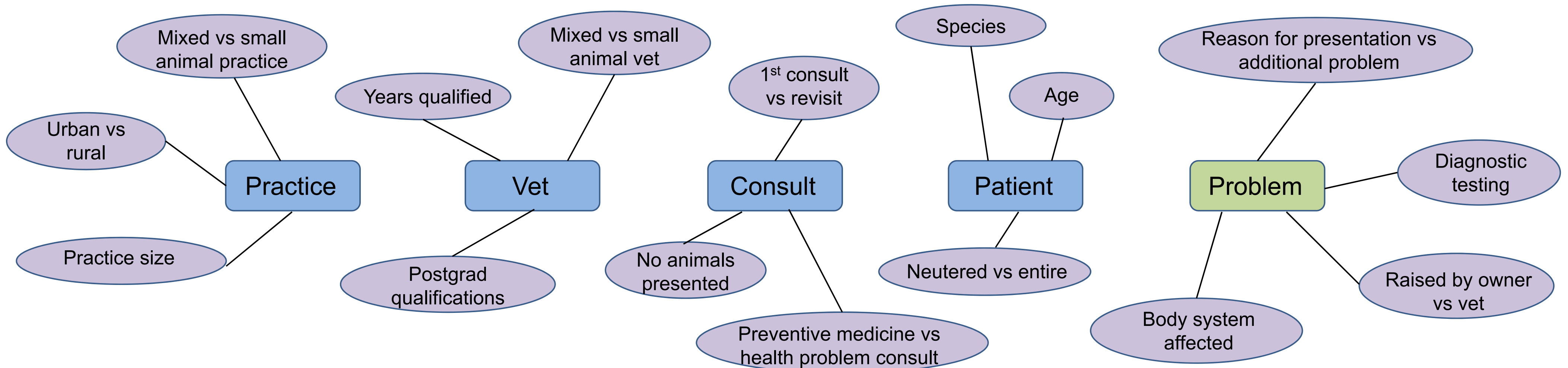


Figure 1. Circles show possible explanatory variables for inclusion in the model

## 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

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## 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*. 1<sup>st</sup> Ed. London: Elsevier

