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Background: Evidence-based veterinary medicine (EBVM) is the conscientious, explicit and judicious use of the current best evidence, when making decisions about the individual patient¹. Despite being shown to improve patient outcomes², the application of EBVM in equine practice remains seriously hampered by the **lack of reliable data**, even for the most common conditions³.

Accurate prevalence data, needed to guide the diagnostic process, are in short-supply owing to the **comprehensive absence of disease monitoring** in the UK horse population⁴. Estimates from laboratory submissions, owner-reported surveys and clinical studies, offer some insight but are prone to incompleteness, bias and poor generalisability⁵. **Analysis of electronic clinical records (ECRs)** from first-opinion veterinary practices, as conducted by VetCompass, can provide a **more accurate assessment**⁶.

Since its launch in 2009, the RVC's VetCompass project has collected over 10 million ECRs from small animal practices. These have been analysed to quantify the most common disorders affecting dogs and cats^{7,8} and to establish risk factors for several important conditions^{9,10}. Excitingly, VetCompass has now been adapted for use in equine practice, providing enormous opportunity for the study of equine health and the **generation of robust disease statistics**.

Aim: To create an efficient and sustainable practice-based system for equine health surveillance

Objectives:



Create a set of diagnostic (VeNom) codes relevant to first-opinion equine practice

Embed VeNom codes into the electronic clinical records system of participating practices



At each care episode have the attending veterinary surgeon tag the patient record with the VeNom code that best describes the reason for examination

Feedback study findings to support EBVM

Analyse records to estimate frequency of, and identify risk factors for, common equine conditions

VetCompass

Collect VeNom codes, free-text clinical notes and select patient information e.g. age, sex and breed

Relevance: Electronic clinical records, from first-opinion veterinary practices, represent a valuable yet currently underused source of equine disease information. The development of Equine VetCompass will facilitate the use of this data for the **monitoring of health in the national horse population**.

The results of **routine disease surveillance** can be used to:

- Underpin and direct **evidence-based veterinary medicine in equine practice**
- **Improve the provision of equine healthcare** through the more targeted training of veterinary professionals
- **Identify priorities for equine research** that are relevant to the diseases that affect a large number of UK horses

By supporting these activities Equine VetCompass will **improve the long-term health and welfare** of the individual horse and the larger equine population.



References:

1. Sackett, D.L., Rosenberg, W.M.C., Gray, J.A.M. and Haynes, R.B. (1996) Evidence-based medicine: what it is and what it isn't. *Br. med. J.* 312, 71-72.
2. Bahtsevani, C., Udén, G. and Willman, A. (2004) Outcomes of evidence-based clinical practice guidelines: a systematic review. *Int. J. Technol. Assess. Health Care* 20, 427-433.
3. Marr, C.M. (2003) Defining the clinically relevant questions that lead to the best evidence: what is evidence-based medicine? *Equine Veterinary Journal* 35 (4) 333-336
4. Equine Sector Council [online] Available at: <http://www.newc.co.uk/law/equine-health-welfare-strategy/> [Accessed 27 November 2015]
5. Ireland, J.L., Wylie, C.E., Collins, S.N., Verheyen, K.L.P. and Newton, J.R. (2013) Preventive health care and owner-reported disease prevalence in horses and ponies in Great Britain. *Research in Veterinary Science* 95(2):418-24
6. McGreevy, P.D. (2007) Breeding for quality of life. *Animal Welfare* 16: 125-128.
7. O'Neill, D.G., Church, D.B., McGreevy, P.D., Thomson, P.C. and Brodbelt, D.C. (2014) Prevalence of disorders of dogs attending primary-care veterinary practices in England. *PLoS One*. 2014 Mar 4; 9(3):e90501
8. O'Neill, D.G., Church, D.B., McGreevy, P.D., Thomson, P.C. and Brodbelt, D.C. (2014) Prevalence of disorders recorded in cats attending primary-care veterinary practices in England. *Veterinary Journal*. 202 (2) 286-291.
9. Stephens, M., O'Neill, D., Church, D., McGreevy, P.D., Thomson, P.C. and Brodbelt, D. (2014) Feline hyperthyroidism reported in primary-care veterinary practices in England: prevalence, associated factors and spatial distribution. *Veterinary Record*. 175(18):458
10. Taylor-Brown, F E and Meeson, R L and Brodbelt, D C and Church, D B and McGreevy, P D and Thomson, P C and O'Neill, D G (2015) Epidemiology of Cranial Cruciate Ligament Disease Diagnosis in Dogs Attending Primary-Care Veterinary Practices in England. *Veterinary Surgery*, 44 (6). pp. 777-83