rcvsknowledge.org

Belgravia House
62 - 64 Horseferry Road
London SW1P 2AF

T: +44 (0) 20 7202 0721
F: +44 (0) 20 7202 0751
E: info@rcvsknowledge.org
twitter.com/rcvsknowledge

Target Grants I

Context

1. The first round of the Target Grants program was launched in late 2013, aimed at quantifying the veterinary caseload in high- and low-income-settings.[1]
2. Collecting objective information on the caseload of 1st opinion practice is the first step in an evidence-based approach to understanding which conditions are most commonly encountered by veterinary healthcare teams.
3. The results of this study will allow RCVS Knowledge to prioritise the work of the EBVM Network by highlighting the most relevant research themes and where the main evidence gaps are. This in turn will allow a more efficient use of funds and resources for scientific research.
4. The results will also potentially help direct the training of new generations of veterinary surgeons to prepare them for the conditions most commonly faced in first opinion practice.
5. Further, with an increasing demand for specialist consultancy (including out-of-hours) an accurate understanding of the caseload will assist practices that aim to expand their business to invest in those services that have shown a convincing trend towards growth.

Main results and conclusions

6. The “Veterinary Caseload” Target Grants awarded £40,000 to 8 projects which analysed a total of 1.352 million veterinary clinical records from first opinion veterinary practice across the world.
7. Some populations were especially representative. Records were analysed from
   a. 1.5% of the total equine population in the US;
   b. 2.4% of the entire dairy cow population in the UK;
   c. More than 125,000 out-of-hours patients (largest study ever of acute conditions in small animals);
   d. More than ¼ million small animal records in the UK;
   e. More than ½ million records of working equids in low income settings (Morocco, Mali and Ethiopia).
8. Projects in high- and low–income-settings reported similar challenges:
   a. the absence of standardisation in veterinary nomenclature (the same diagnosis or presenting complaint can be recorded in several ways, which makes it harder to account for);
   b. poor clinical record-taking from veterinary surgeons (for example, as little as 10% (or less) of records include diagnoses);
   c. poor clinical record-keeping in veterinary practices (the accuracy of clinical records is seldom audited)
   d. In the field, i.e. in farm animal practices or low-income-settings, record taking is frequently neglected.
9. As expected, a small number of conditions, diagnoses and presenting complaints make up more than 50% of the veterinary caseload. For example:

[1] As defined by the World Bank at the time of the grant. See: http://data.worldbank.org/about/country-and-lending-groups (accessed 30/07/14)

a. For dogs in the UK, 23 out of 200 possible diagnoses constitute 50% of the caseload. For cats this number falls to 17. For acute conditions (emergency consultations) that number drops to 7 for dogs and 4 for cats.
b. For equines in high income settings, 3 out of 20 "reasons for visit" are responsible for 50% of the caseload (Orthopaedic, Vaccinations, and Haematology). In low income settings, that number is reached by de-worming alone.
c. For farm animals, 6, 7 and 8 clinical conditions account for 50% of the caseload for dairy cows, beef cows and ovines respectively.

Needs highlighted by the reports

Development of international endorsed classifications on health

10. There was a recognised difficulty in delivering the information requested in these Target Grants. Less than a handful of organisations and researchers worldwide were in place to provide the data requested, which constitutes a fundamental pillar for an evidence-based approach to funding, teaching and reflecting about veterinary practice.
11. This is not a new finding, but it highlights that there is a pressing need to find a "consensual, meaningful and useful [nomenclature] framework which governments, providers and consumers can use as a common language."[2]
12. "Internationally endorsed classifications facilitate the storage, retrieval, analysis, and interpretation of data. They also permit the comparison of data within populations over time and between populations at the same point in time as well as the compilation of nationally consistent data."[3] These values are celebrated in the World Health Organisation (WHO) constitution and have no known mirroring in similar veterinary institutions.
13. Even so, efforts have been made to bridge this gap:
    a. The VeNom group has developed (and maintains) a standard set of clinical veterinary terms, the VeNom Codes for use in referral veterinary hospital electronic patients records and first opinion veterinary practice management systems.[4] No precise diagnostic criteria exist for VeNom coding, which would significantly improve its validity.
    b. The veterinary IRIS group and the associated diagnostic criteria for renal disease are an excellent example of this very specific approach to diagnostic coding.

Better diagnostic coding

14. Although "presenting complaint" or "reasons for visit" are recorded frequently in veterinary practices with good record-keeping habits, "diagnosis" is seldom recorded (in some cases it is only 10% of all records kept).
15. Practice management systems (PMS) should not necessarily make a diagnosis code mandatory as it could lead to a high volume of inaccurate data - diagnosis can't always be recorded and is often only tentative.
16. However, the low levels of compliance suggest that veterinary surgeons and practices are not motivated to keep a record of diagnosis, once it is reached.

[2] http://www.who.int/classifications/en/ (accessed 30/07/14)
[3] http://www.who.int/classifications/en/ (accessed 30/07/14)
[4] http://www.venomcoding.org/VeNom/Welcome.html (accessed 30/07/14)

17. In human medicine, diagnostic coding has significant implications for insurance reimbursement, which means that a financial incentive exists for coding implementation.
18. In human medicine, there is a generally accepted world standard (ICD-10), which provides a common language for reporting and monitoring diseases. Diagnosis coding using ICD is usually accomplished by medical recording personnel rather than medical staff and the criteria for achieving certain diagnosis are regularly reviewed by interest sub-groups.
19. PMS functionalities associated with coding for diagnosis can be improved. For example, group prefixes can be assigned to each diagnostic code term in a dropdown list to make it quicker and easier to attribute a diagnosis to a case (e.g. all diagnosis related to GI will be grouped together).

Better education/evangelisation regarding the need of clinical records

20. The medical record is the central repository of patient information:
    a. It allows planning of patient care, based on solid information such as patient's history;
    b. It documents communication between carers and the professionals contributing to the patient's healthcare;
    c. It allows professionals to build a knowledge base about the cases they see and about the success of the interventions they perform
    d. It is a fundamental tool in assuring compliance with institutional, professional or governmental regulation;
    e. It allows the world to compare and share data in a consistent and standard way – between hospitals, regions and countries and over periods of time. It facilitates the collection and storage of data for analysis and evidence-based decision-making.[5]
21. This message is not getting across to many veterinary surgeons across the world, but it is important that it is received, if a true evidence-based profession is to be supported.
22. Educational campaigns in individual practices to facilitate and encourage the use of diagnosis coding, for example, can address part of the problem;
23. Creation of focus-groups to provide feed-back to coding and PMS organisations can be considered.

Data recording in the field

24. Farm animal veterinary surgeons and those working in low income settings frequently neglect to enter data, as they are often away from a desk or a computer.
25. For farm vets, clinical data can mostly be obtained from billing information, which is far from ideal. For low-income-settings, information tends to derive from government monitoring of specific diseases.
26. Grant-holders identified the pressing need to develop capture systems that allow quick and easy recording of data "on-the-move".
27. Mobile phones equipped with EpiCollect+ were purchased and piloted by two the grant-holders in low income settings. This seems to be a solution with potential to be implemented elsewhere.

Better VeNom Implementation

28. Areas for further improvement to VeNom terms were identified and feedback will be provided to the VeNom group.

[5] http://www.who.int/classifications/icd/revision/icd11faq/en/ (accessed 30/07/14)

What's next

RCVS Knowledge has begun matching the most common conditions, as identified by Target Grants I, with the published literature (namely systematic reviews) in order to assess how strong the evidence-base is around each condition. This information will be shared with the EBVM Network, other funders, the practising community, regulators and academics alike. It will set the priorities for Knowledge Groups, which will review and summarise the evidence in a particular area of veterinary care. Our goal is for these groups to create and maintain a solid base of relevant Knowledge Summaries to be available for practitioners to use at the point of care.

Target Grants II, to be announced in late 2014, will support the development of teaching curricula and learning resources for short courses on EBVM. These courses will equip veterinary professionals with the skills they need to be able to produce Knowledge Summaries.