EVIDENCE-BASED VETERINARY MEDICINE

f you graduated before 2003, you likely did not hear the phrase evidence-based veterinary medicine in school, although you have likely encountered it since then. Evidence-based veterinary medicine (EBVM) has roots in evidence-based medicine (EBM). Both methodologies seek to improve decision-making by minimizing both cognitive bias and reliance on clinical impression, which can lead to errors.

The EBM movement began in 1981 at McMaster University (A Brief History of Evidence-Based Medicine [EBM] and the Contributions of Dr David Sackett, Aesthetic Surgery Journal, 2015). EBM was originally defined as the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients (Sackett DL, et al. Evidence-based medicine: what it is and what it isn't. BMJ 1996). EBM was then revised to mean a systematic approach to clinical problem-solving, which allows the integration of the best available research evidence with clinical expertise and patient values (Sackett DL, et al. Evidence-based medicine: how to practice and teach EBM. Churchill-Livingstone. 2000). The figure below illustrates the critical integration of these quite different factors, each of which is also weighted differently in the decision.



Veterinary medicine joined EBM when the Handbook of Veterinary Evidence-Based Medicine was published in 2003. The Evidence-Based Veterinary Medicine Association (EBVMA) was founded in 2004. There were early adopters in the profession both in practice and in veterinary education, but more widespread acceptance has been



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slower. Other highlights in EBM for veterinary medicine include the creation of the Centre for Evidence-Based Veterinary Medicine (EBVM) at the University of Nottingham, along with their Best BETS for Vets and a systematic review database (VetSRev), and development by the Royal College of Veterinary Sciences (RCVS) Knowledge of an EBVM consortium and its development of the EBVM learning tutorial.

The EBVM methodology is generally described as five steps: ask, acquire, appraise, apply and assess. This column has talked before about the utility of framing an information need as an answerable question; that's the ask step. Many of the editions of this column have talked about the acquire step in one way or another. Let's look at a comprehensive EBVM tutorial.

EBVM Learning, ebvmlearning.org, is a modular, interactive, online tutorial about the EBVM methodology. It includes worked examples and guizzes. A number of veterinary schools include it in their curricula. The 2015 first edition was created by an international team with funding support from RCVS Knowledge. An expanded team created the 2021 revision and leaned heavily on a user feedback analysis (Sellers E., et al. "Promoting Evidence-based Veterinary Medicine through the online resource 'EBVM Learning': User feedback." Veterinary Evidence. 2021.). The new edition increases interactivity, condenses text length and adds progress tracking, completion certificates and CE credit. Each chapter begins with a brief summary,

has an interactive table of contents allowing you to go directly to the content of interest and ends with a quiz. It is designed to dip in and out to access the content you need when you need it.

The feedback indicated that one tutorial does not meet all needs. A project focused for veterinary clinicians is underway. It will be short and focused, summarizing information about the five steps of EBVM and providing practical examples for use in clinics including clinical audits, guidelines and journal clubs. Look for announcements about it later in the year.

Additional Resources

Evidence-Based Veterinary Medicine Association, www.ebvma.org RCVS Knowledge EBVM Toolkit, A

guide to the first three steps of EBVM. The critical appraisal includes support for levels of evidence, information about study design and checklists for appraising 10 study designs, https://knowledge.rcvs.org.uk/evidence-based-veterinary-medicine/ebvm-toolkit/

Veterinary Evidence, Freely available online journal published by RCVS Knowledge. Includes articles with audio summaries and evidence syntheses called Knowledge Summaries (KS), https://veterinaryevidence.org

Best BETS for Vets, Evidence summaries about cats, dogs, cattle, sheep, poultry, horses and rabbits, https:// bestbetsforvets.org/

VetSRev Database, Freely available database helps locate veterinary systematic reviews, www.nottingham. ac.uk/cevm/evidence-synthesis/ systematic-review/vetsrev.aspx

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