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Why 'Knowledge Summaries'?

"People around the planet have already started systems to share critically appraised topics (CATs). This is the only effective approach to the information explosion in clinical medicine. We must share CATs on a global basis. We are all asking the same questions and seeking the same answers. If we share that process, then we may be able to make the information needed by clinicians more widely available, as well as accessible at the point of clinical contact" (M Dawes, 2005)¹

In the veterinary profession, as in human medicine, a great deal of time is spent making decisions in a complex and often uncertain environment. Research has shown that physicians typically encounter up to 5 "knowledge needs" for every in-patient and about 2 new "needs" for every 3 out-patients.² It has also been (conservatively) estimated that, in order to practice safely and effectively, a family physician needs answers for the *circa* 333,000 questions that can potentially arise whilst attending generalist patients, over the course of a year.¹ For busy veterinary healthcare teams, which are required to deal with more than just one animal species, these "knowledge needs" are bound to be more numerous and so the challenge to keep up with the latest research is considerably higher.

Decisions at the point of clinical care require sound, objective and up-to-date evidence which cannot be provided by textbooks or review articles, which often fail to mention important advances or exhibit delays in recommending effective preventive measures.³ Importantly, it has been shown that interventions that are ineffectual or potentially detrimental to morbidity or mortality can sometimes continue to be recommended by clinical experts based on outdated research.⁴ The direct application of research evidence in clinical practice may therefore be hindered by the use of outdated textbooks, poorly organised journal reading, lack of skills on how to find answers and lack of time to spend on tracking suitable sources of information.⁵

Practitioners' needs for up-to-date information and help them in the almost impossible task of scanning the totality of the veterinary research evidence produced every year in logarithmic growth,⁶ resources aimed at expediting access to the fruits of clinical research have been developed.⁷

Systematic reviews represent the gold-standard in terms of providing evidence for clinical recommendations⁸. However, not only are systematic reviews considerably complex and lengthy to perform (typically 1-3 years), but also 44% of reviews conclude that there isn't sufficient evidence to support any clinical decision, and 95% conclude with a call for further research.⁹

Veterinary teams need practical, patient-based, evidence-based tools to solve patient-problems in a time-efficient manner.

One way that has been explored to expedite access to good evidence and strengthen the interface between practitioners and evidence based resources is the creation of databases of *Critically Appraised Topics* (CATs).^{5,7} Because veterinary medicine deals with feline (cat) species about which a CAT topic might have to be written, we will refer to critically appraised topics henceforth as "*Knowledge Summaries*", in that they are *summarised* resources to address *knowledge* needs.

Knowledge Summaries were initially developed to assist the application of evidence-based medicine in ward rounds, are completely patient-driven and prioritise "just-in-time" learning, as opposed to "just-in-case" reading.^{5,10}

From a real patient encounter, or clinical problem in the course of a research study, a clinical question is generated, which drives a search for published studies that address it. The studies are then critically evaluated and key results are summarised and translated into useful conclusions. The result from the encounter, question, and critical appraisal process is then summarised in a short document (typically 1 or 2 pages) which should be easily (and rapidly) accessible by clinical staff (ideally in less than 30 seconds).¹¹

A Knowledge Summary is therefore a standardised, succinct summary of the research evidence organised around a clinical question that enables veterinary teams to incorporate evidence from scientific literature into their clinical practice, without requiring the time or specialized training necessary to critically appraise papers and that allows team members to draw conclusions for themselves.

Knowledge Summaries have been previously identified to have tremendous potential in veterinary medicine^{10, 12, 13, 14} and, against prevailing thought, it has been found that sufficient published information is available to create such veterinary critically appraised topics.¹⁵ Exploratory (unpublished) research carried out by RCVS Knowledge has also confirmed the enthusiasm that veterinary professionals have to explore this type of resource, based on the views expressed by the participants of [the first open symposium on evidence based veterinary medicine in the UK](#).

So far, resources similar to veterinary Knowledge Summaries have been developed and made available online in a dispersed manner. Some are written by professionals in practice and can be accessed directly through the [websites of large practice groups](#), some reside behind academic journal pay walls¹⁶ and some are written by students and posted in veterinary online fora.¹⁷ This means that there is no single point of access for this type of valuable clinical information and that the best evidence can only be accessed after multiple online searches using different websites and search engines.

RCVS Knowledge intends to address this gap by

- Building a centralised portal which could host a large quantity of Knowledge Summaries (as well as direct links to external pages where knowledge summaries are currently available);
- Offer online training specifically on critical appraisal and writing of Knowledge Summaries;
- Providing software tools to assist the making of Knowledge Summaries and their online access;
- These will be underpinned by an integrated system of incentives, to include monetary prizes, travel awards and/or CPD opportunities, with the aim of increasing significantly the number of Knowledge Summaries currently available to vets.

We acknowledge that a trade-off sometimes exists between the quality of the synthesis of evidence and ease of practitioner access and use.¹⁸ Ensuring that all the Knowledge Summaries contain peer-reviewed, high quality, current information is obviously a major challenge. However, it has been shown before that dynamic interactivity and information retrieval technology can address these issues⁷ and that peer-to-peer review alongside a clear labeling of how current the material is can be a safe and effective way to provide good evidence at the point of clinical decision.

We are also confident that the high level of engagement of the veterinary profession with evidence based veterinary medicine (EBVM) and the establishment of a global/worldwide production engine of Knowledge Summaries, manned by “generation internet” academics, veterinary surgeons and nurses in clinical practice, students and recent graduates will ensure peer review, quality control and the gathering of the biggest online community of veterinary expertise.

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