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Evidence-based Veterinary Medicine – Making a practical start

Dr Rachel Dean, Dr Douglas Grindlay and Clare Boulton



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Evidence-based Veterinary Medicine

GOOD DECISIONS

GOOD SCIENCE

GOOD VETS

Evidence-based veterinary medicine is the use of relevant evidence in conjunction with clinical expertise to make the best possible decision about a veterinary patient.

The circumstances of each patient, and the circumstances and values of the owner/carer must also be considered when making an evidence-based decision.

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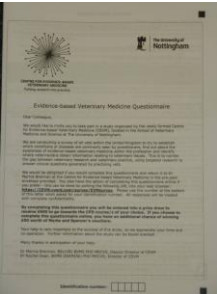
AIM: To increase the awareness and use of evidence-based principles in the veterinary profession

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EVM – what do vets think?



“The concept of ‘evidence-based medicine’ is utterly offensive and meaningless.....everything we do is evidence-based”

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5 steps of EVM

1. Ask
2. Acquire
3. Appraise
4. Apply
5. Assess

Starts in practice

↓
Finishes in practice

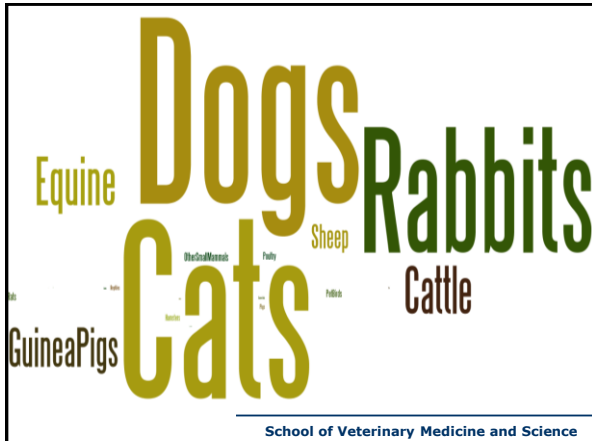
'Making a practical start'

5 steps of EVM

- 1. Ask**
2. Acquire
3. Appraise
4. Apply
5. Assess

What are my chances?

What do we need to know?




What is your question?


- A new resource...

<http://bestbetsforvets.org>

5 steps of EVM


1. Ask
- 2. Acquire**
3. Appraise
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Acquiring the evidence I

Dr Douglas Grindlay
Veterinary Information Specialist




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Which databases should be used for evidence-based searches in veterinary medicine?



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Grindlay et al. Searching the veterinary literature: a comparison of the coverage of veterinary journals by nine bibliographic databases. *JVME Advance Online*, 9 July 2012.

Coverage of 1139 journals:

CAB Abstracts	90.2%
Scopus	58.5%
Web of Science	53.3%
MEDLINE	36.5%

- 23% of journals unique to CAB Abstracts

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Conclusions

- CAB Abstracts should be included in any comprehensive search of the veterinary literature
- Risk of missing relevant evidence if MEDLINE alone is searched

☞ Many published veterinary systematic reviews search only MEDLINE (or the free version PubMed)


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What has already been published in veterinary systematic reviews?



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Searching for veterinary systematic reviews

Cochrane definition of a systematic review:

"A review of a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise relevant research, and to collect and analyse data from the studies that are included in the review"

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- Good quality systematic reviews at top of “pyramid of evidence”
- **BUT:** Currently no easy way to find veterinary systematic reviews

Our aim:

A public online database of systematic reviews relevant to veterinary medicine & science

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Method:

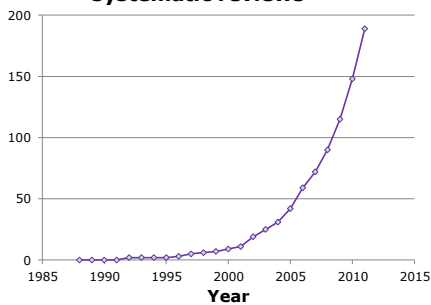
Searches of PubMed and CAB Abstracts using specialised search strategies (filters)

Main inclusion criteria:

- Relevant to veterinary medicine & science
- Methods section
- Databases named

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Total number of veterinary systematic reviews



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- 255 systematic reviews of veterinary relevance published up to August 2012
- Number published each year increasing linearly
- Total number increasing exponentially
- 41 published in 2011, *c.f.* 2 published in 2001

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- Range in methodological quality, e.g. PubMed alone ⇔ Multiple databases
- Some equivalent to Cochrane methodology (esp. zoonoses and public health)
- Groups have started doing systematic reviews independently in many countries
- Main countries: USA, Canada, UK, Australia, France, Denmark, Germany

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Conclusions

- Our planned online database of systematic reviews will help vets find the existing best evidence
- Potential for network of systematic review authors to share best practice
- Consensus standards for veterinary systematic review methodology?

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Acquiring the Evidence: II

Clare Boulton
Librarian

www.rcvscharitabletrust.org.uk

Where can practitioners acquire the evidence?

www.rcvscharitabletrust.org.uk

RCVS Charitable Trust Library

- For all vets and veterinary nurses
- Wide range of resources and services
- Membership scheme for regular users

www.rcvscharitabletrust.org.uk

Resources – databases

- CAB Abstracts (onsite)
- VetMed Resource (includes CAB's Veterinary Science Database, the veterinary subset of CAB Abstracts (offsite - library members))

www.rcvscharitabletrust.org.uk

Resources – journals

- Approximately 75 current print titles
- Over 500 full text electronic journals (offsite - library members)

www.rcvscharitabletrust.org.uk

Services – literature searches

Professionally qualified library staff who:

- Offer workshops on effective searching of databases
- Carry out tailor made literature searches
- Supply quarterly alerts in a range of subjects

www.rcvscharitabletrust.org.uk

Acquiring the Evidence: II



Where else can a practitioner find evidence?

- Membership of associations – access to resources
- Individual subscriptions to journals or databases
- Critically appraised topics
- Other resources e.g. WikiVet, IVIS and VIN

www.rcvscharitabletrust.org.uk

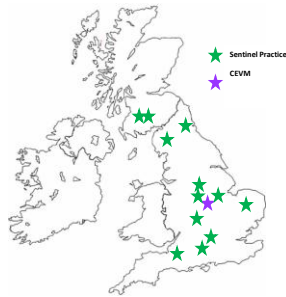


5 steps of EVM

1. Ask
2. **Acquire (part III)**
3. Appraise
4. Apply
5. Evaluate

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Practice-based research



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5 steps of EVM

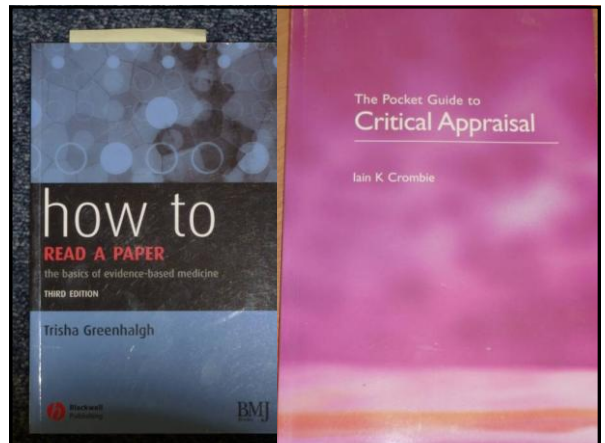
1. Ask
2. Acquire
3. **Appraise**
4. Apply
5. Evaluate

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Reading a paper



Scho



5 steps of EVM

1. Ask
2. Acquire
3. Appraise
- 4. Apply**
5. Assess

Starts in practice

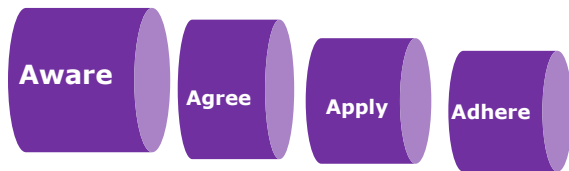


Finishes in practice

Applying evidence



Veterinary leakage



It is a challenge

'One of the greatest pains to human nature is the pain of a new idea. It makes you think that after all, your favourite notions may be wrong, your firmest beliefs ill-founded.... Naturally therefore, common men hate a new idea, and are disposed more or less to ill-treat the original man who brings it.'

Walter Bagot 1873

5 steps of EVM

1. Ask
2. Acquire
3. Appraise
4. Apply
- 5. Assess**

Starts in practice



Finishes in practice

Whose responsibility is EVM?

- Individual practitioners?
- Universities – research and teaching?
- Veterinary organisations?
- Veterinary journals?
- RCVS/RCVS Trust?
- Industry?

'Making a practical start'

A practical start?



- Some new resources and evidence coming your way
- Thank you



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