Evidence-based Veterinary Medicine
A vet’s perspective
(and an introduction the GROEL)

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Why am I here?

• Veterinary epidemiologist by training

• Teaching EBVM in UofB
  • Vertical theme spanning all five years, generate a CAT in final year rotation

• Emerging field, so wanted to combine forces!

• But you likely know more than me!
How vets might see EBVM

- Formal, explicit application of scientific philosophy and methods to generate understanding and make decisions in veterinary medicine
  - Only for academics/specialists?
- Can help to
  - Make good decisions
    (differentiate ‘truth’ from ‘luck’)
  - Reduce errors
  - Communicate with clients
    (informed consent)
Some basic concepts (that might be difficult for vets!)

• Uncertainty needs to be acknowledged, embraced and accepted
• The amount of evidence varies from none to ‘enough’
• Nothing is ‘gospel’!
Why EBVM?

• In practice, actions can be constrained by
  • Time limitations
  • Resource limitations
  • Clients’ agendas
• EBVM can
  • Facilitate better clinical decision-making
  • Improve patient care
• A paradigm shift?
“In general practice, no two situations are ever identical; we are constantly forced to compromise and juggle competing needs. At the end of each day, we examine our consciences to assess our performance. EBVM provides one yardstick for us to measure up to, whoever we believe we are accountable to.”

What we know so far

• A number of groups are taking the lead on EBVM
  • EBVMA in North America, established 2004
  • CEVM in UK, established 2009
  • RCVS Knowledge, engaged profession 2013
  • GROEL consortium, established 2015

• Most vets are still unfamiliar with the topic
• Many younger vets are keen to engage, many older vets are resistant
• There is still very little evidence!
Teaching EBVM workshop

- 2013 – UK vet schools
- Share current practice
- Very helpful – and should be repeated!
- RCVS Network Grant currently submitted to extend/internationalise this group
Some of the barriers & facilitators

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<tr>
<th>Barriers</th>
<th>Facilitators</th>
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<tr>
<td>• <em>Them</em></td>
<td>• <em>Us</em></td>
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<tr>
<td>• Sceptics and cynics</td>
<td>• Resources</td>
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<tr>
<td>• Ignorance, anxiety and lack of ability</td>
<td>• Changing curricula</td>
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<tr>
<td>• Time</td>
<td>• Professional and public pressure</td>
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<td>• Students</td>
<td>• Students</td>
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Teaching EBVM to vets

- Needs to be across the curriculum, starting early
- Components
  - Clinical applications
  - Contextual
  - ‘Species agnostic’
- Presents solid knowledge of:
  - Database searching
  - Research study design
  - Epidemiology/statistics
Teaching / implementation

- Create a Knowledge Summary!

- Experience case or choose suggested subject
- Review of EBVM principles
- Conduct CAT and complete template
Knowledge Summaries

- A rose by any other name...
- Critically appraised topics = CATs
- Best evidence topics = BETs
- www.bestbetsforvets.org
The big idea

• Build on the EBVM Network
  • Bring together key stakeholders to collaborate

• Long-term goals
  • KS database? Wiki tools for KS collaboration?
  • MOOC?
  • Assessments of EBVM teaching?
  • Specialist training?
Target Grants 2 has been awarded to an international collaboration of Network members who will develop a free online EBVM course for practitioners.

The project is lead by Dr Kristen Reyher from Bristol University, and Drs Rachel Dean and Marnie Brennan from Nottingham University, and will combine the resources of team members from education centres in Germany, Canada, the USA, Romania and the UK.
What will the GROEL do?

• Provide open-source learning
• Align with existing resources
• Build a community of practice
Five steps of EBVM

1. ASK
   (a specific question)
2. ACQUIRE
   (the evidence)
3. APPRAISE
   (its quality)
4. APPLY
   (to practice)
5. ASSESS
   (on clinical outcomes)
1. ABCs of EBVM

- Other types of medicine
  - Eminence
  - Anecdote
  - Faith
  - Vehemence
  - Internet
  - Nervousness
2. ASK

• Why it’s important to ask questions
• How to identify questions in clinical practice
  • Therapy, diagnosis, prognosis, incidence/prevalence or etiology/harm
• How to format questions (PICO, SPICO, PICOT, etc.)
3. ACQUIRE

• Where to find evidence
  • Identify information sources

• How to find evidence
  • Getting access!

• Managing search results
  • Referencing and reporting search strategies
4. APPRAISE

• Why it’s necessary to appraise
• What factors should be appraised
• Tools to support appraisal
  • Lots of links!

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<th>Scientific evidence and appraisal</th>
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<tr>
<td>Table: Review of relevant papers</td>
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<td>Papers reviewed</td>
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<tr>
<td>Frimley et al. (2005) UK</td>
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<td>Bednarz et al. (2000), Poland</td>
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<td>Lockwood et al. (2010), UK</td>
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5. APPLY

• Implementing is the most challenging!
  • Motivations, resources

• How relevant is the evidence?

• Promote new evidence to colleagues and clients
  • E-mails, journal clubs, clinical rounds, etc.

• Strategies for change
  • Personal or clinic/practice-level
  • Keep good records!
6. ASSESS

• Clinical governance / clinical audit
  • Monitoring and discussing clinical outcomes and acting on results
  • Few practice guidelines exist

• Developing an ethos of EBVM

• Continually repeat the cycle!
Also in the GROEL…

- Testing to allow continuing professional development/education credits
- Stand-alone, flexible learning objects with extensive links
- Problem-based/self-directed learning to develop key skills
- Case-based examples of applying EBVM

Global Resource for Online EBVM Learning
Future developments

- Dissemination
  - VetEd, InVeST, BCVA, ESOF so far...
- Extend community
  - Industry vets keen to incorporate CATs
- Other funding
Thank you!

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Global Resource for Online EBVM Learning