Reporting guidelines in veterinary journals: how are they used now and can they inform the peer review process?

Dr Douglas Grindlay
Outline of talk

1. Introduction
2. What are reporting guidelines and why are they important?
3. Our survey of Editors-in-Chief
4. How can reporting guidelines be implemented?
5. Can there be a consensus on implementation?
6. Conclusions
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Where I am coming from...

- Information Specialist in Centre for Evidence-based Veterinary Medicine (CEVM)
- Previously in human evidence-based medicine with NHS Evidence
- PhD Agricultural Research & MA Library and Information Science
My roles

- Teaching searching & critical appraisal to vet students, postgrads and vets
- Production of online databases
- Author of research & review articles
- Occasional peer reviewing and editing
The CEVM

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

Themes:

- Population research
- Evidence synthesis
- Veterinary & Practice-based research
- Education & Information Exchange

www.nottingham.ac.uk/cevm
Ingram, Grindlay & Williams (2010)
Problems in the reporting of acne clinical trials: a spot check from the 2009 Annual Evidence Update on Acne Vulgaris.

- 25 RCTs from one year
- Around half had potentially serious reporting and methodology problems
- 12 different problems identified
- Could mostly be avoided using the CONSORT reporting guideline
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Reporting guidelines
(or standards or statements)

Statements that provide advice on how to report research methods and findings

Aim to improve...
• Transparency
• Accuracy
• Completeness of reporting

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REPORTING GUIDELINES

✓ A guide to authors, peer reviewers and editors
✓ Checklists of what should be included
✓ Allow assessment of risk of bias by reviewers and readers
✓ Facilitate systematic reviews and evidence synthesis
Examples

• CONSORT: Randomised controlled trials (RCTs)
• ARRIVE: Research using lab animals
• REFLECT: Livestock & food safety RCTs
• PRISMA: Systematic reviews & meta-analyses
• STROBE: Observational studies

See:
www.equator-network.org/
Example items from REFLECT:

- How study units allocated to interventions
- Natural exposure or deliberate disease challenge
- Primary and secondary outcomes
- Sample size determination
- Randomisation method
- Blinding
Poor reporting in veterinary clinical trials

Nielsen & Toft (2008)  Diagnostic tests for paratuberculosis
Sargeant et al. (2009)  Livestock
O'Connor et al. (2010)  Bovine respiratory disease
Sargeant et al. (2010)  Dogs & cats
Simoneit et al. (2011)  Reproduction in cattle, horses & dogs
Giuffrida (2014)  Small animals

See discussion by More (2010) and O'Connor (2010)
BestBETs for Vets
Supporting veterinary clinicians in making evidence-based decisions

http://bestbetsforvets.org

- Website with appraisals of evidence to answer focused clinical questions
- Students appraising research papers:
  “How did this study get published in a refereed journal?”
  “Aren’t there checklists for what information to include?”
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Grindlay et al. (2014)

- Online questionnaire through IAVE list
- April 2012
- 185 journals invited
- 37% response rate ($n=68$)
Before receiving this questionnaire, did you know what a reporting guideline was?

- Yes: 53%
- No: 47%

$n=68$
Does your journal refer to reporting guidelines in its instructions to authors?

- Yes: 35%
- No: 60%
- Don't know: 5%

n=57
Do you believe that reporting guidelines should be adopted by all refereed veterinary journals where appropriate?

- Yes: 68%
- No: 11%
- Don't know: 21%

$n=44$
Reasons for not using?

- Lack of knowledge or previous consideration
- Policy set by publisher
- Difficult to implement
- Undue burden on reviewers
- Issue of freedom
- Reporting is authors’ responsibility
- Fear of losing submissions
- Not suited to all article types
What factors are preventing adoption?

- Lack of knowledge among authors, reviewers AND editors
- Tradition, fear, resistance to change
- Workload & economic factors
- ‘Publish or perish’
- Fear of losing submissions
What factors would promote adoption?

• Increased awareness:
  ✓ Communication & promotion (IAVE)
  ✓ Information on Internet
  ✓ Editorials
  ✓ Conferences & CPD
  ✓ Education (Vet Schools)

• Consensus on implementation across journals – level playing field
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Flow chart of submission and peer review process

Authors write paper

Submitted to journal

Initial checking by journal

Reviewed by referees

Final decision by Editor(s)

Information and education

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Ways to implement

- Endorsement by journal
- Reporting guidelines recommended in instructions to authors
- Authors to declare that relevant reporting guideline followed
- Authors to submit checklist
- Checking by editorial office staff
- Checking by peer reviewers
- Checking by Editors
Is endorsement by journals sufficient?

Turner et al. (2012)
Does use of the CONSORT Statement impact the completeness of reporting of randomised controlled trials published in medical journals? A Cochrane review.

- Journal endorsement of CONSORT may benefit completeness of reporting
- **BUT** reporting still sub-optimal
- Journals “not sending a clear message about endorsement to authors”
Is endorsement by journals sufficient?

Baker et al. (2014).

Two years later: journals are not yet enforcing the ARRIVE guidelines on reporting standards for pre-clinical animal studies

- Over 300 journals endorsed ARRIVE guidelines on lab animal research
- **BUT** little improvement in reporting in papers in *PLOS* and *Nature* journals
- “This suggests that authors, referees, and editors generally are ignoring guidelines”
Equator Network case studies: How medical journals implement reporting guidelines

http://www.equator-network.org/toolkits/editors/case-studies-how-journals-implement-reporting-guidelines/

- Many medical journals put onus on authors to show compliance
- May require completed checklist
- May require statement of compliance
- EQUATOR case studies suggest not much extra work for journals
What about veterinary journals?

• Some instructions to authors online encourage use of reporting guidelines, e.g. JAVMA, Equine Vet J.

• A few say they require adherence, e.g. BMC journals, Vet Clin Pathol.

• A few require relevant checklist to be appended at submission, e.g. Prev Vet Med, Vet Rec Open.

▷ How do journals check?
Q. What do you do with submissions not meeting relevant reporting guideline?

(Journals mentioning reporting guidelines in instructions to authors)

<table>
<thead>
<tr>
<th>Option</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rejected</td>
<td>3</td>
</tr>
<tr>
<td>Returned to the authors to modify in line with the reporting guideline</td>
<td>11</td>
</tr>
<tr>
<td>Do nothing, but rely on the reviewers’ comments</td>
<td>1</td>
</tr>
</tbody>
</table>

*Suggests checked when submitted* $n=15$
How can reporting guidelines help peer review?

- Peer reviewers have key role in assessing methodological quality
- Reporting guidelines provide a framework and guide
- Things may be missed without a checklist—especially omissions
- Use recommended by EQUATOR

Greater consistency and fairness?
What happens in medical journals?

Hirst & Altman (2012)
Are peer reviewers encouraged to use reporting guidelines? A survey of 116 health research journals.

- Great variation in instructions for reviewers on how to evaluate content
- 46% of online instructions to reviewers mentioned reporting guidelines
- Usually general statements suggesting guidelines useful or asking whether authors had complied
Case study - Headache

http://www.equator-network.org/toolkits/editors/case-studies-how-journals-implement-reporting-guidelines/

- Authors required to provide reporting checklist and document where critical reporting elements are in manuscripts
- Reviewers assess—“Checklists are facilitating the peer review process”
- “Some reviewers structure comments around issues raised in the reporting guidelines”
What about veterinary journals?

- Google search—instructions to peer reviewers rarely accessible, so difficult to get overview
- *Veterinary Record Open*—reviewers “to help ensure” that studies are reported according to appropriate guideline
- Some others imply reviewers asked to assess against reporting guidelines

🎵 For discussion?
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Is consensus needed?

Responses to our questionnaire:

• Many suggested need for consensus policy across journals on implementation

• Role proposed for IAVE

Alternative — some journals take lead and gain advantage in reputation and impact?
Is consensus possible?

Chan & Heinemann (2014)
Elevating the quality of disability and rehabilitation research: mandatory use of the reporting guidelines.

- 28 rehabilitation journals published editorial on reporting guidelines
- Agreed to mandatory use of guidelines and checklists by January 2015
- At first submission or acceptance stage
- Onus on author to document inclusion

...It can be done!
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Conclusions

Reporting guidelines can:

✓ Improve the transparency, accuracy and completeness of reporting

✓ Provide a framework and checklist for authors, reviewers and Editors

✓ Aid quality, consistency and fairness in the peer review process
Conclusions

*BUT...*

- Some Editors lack knowledge about reporting guidelines
- Editors believe authors and reviewers also lack knowledge
- Many veterinary journals do not use reporting guidelines
- Endorsement by journals is not sufficient—they need to be enforced
The way forward...

Two-thirds of respondents said reporting guidelines should be implemented by all refereed veterinary journals

- Further communication and education?
- Case studies of implementation?
- Consensus on implementation across veterinary journals?
Further information

www.equator-network.org/

2010 IAVE Meeting
http://veteditors.org/veteditorsmtg-2010.html

www.nottingham.ac.uk/cevm
CEVM@nottingham.ac.uk
@CEVetM

School of Veterinary Medicine and Science
REFERENCES


(continued...)
REFERENCES (cont.)


