## OVERVIEW OF REPORTING GUIDELINES FOR VETERINARY RESEARCH

hether you are reading or writing about veterinary research, a familiarity with research reporting guidelines can increase the value and improve your experience. As a practitioner or student reading, those articles that are written following the guidelines provide a more complete picture of the research being reported. This gives you a more informed perspective from which to judge the strength of evidence in the paper. In reality, you will not always find strong evidence; however, you will still need to make a decision about treatment for your client. Recognizing papers that follow a reporting guideline can simplify your evidence-based decision process.

A survey<sup>1</sup> of veterinary journal editors, published in 2014, found that veterinary journals vary widely in their adoption and use of research reporting guidelines.

A reporting guideline is a "checklist, flow diagram or structured text to guide authors in reporting a specific type of research, developed using explicit methodology.<sup>2</sup> Guidelines provide direction about the information to be included about the research and results and often also a structured reporting format.

Many reporting guidelines have both an explanatory article with examples and a checklist useful to both author and reviewer. The use of reporting guidelines can increase the worth of published research by improving the completeness and transparency of the research description and by helping to illuminate bias.

Each reporting guideline generally relates to a research design or specialty situation.

## Resources About Reporting Guidelines

 The International Committee of Medical Journal Editors (ICMJE) publishes Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals. Last updated in December 2018, the guidelines are linked from



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the committee homepage and available in nearly a dozen languages: http://www.icmje.org/

- Research Reporting Guidelines and Initiatives are compiled by the National Library of Medicine: https://www.nlm.nih.gov/services/ research\_report\_guide.html
- The EQUATOR Network, Enhancing the QUAlity of and Transparency Of health Research, provides a wealth of information about reporting guidelines, scientific writing and peer-review. The site has a searchable database with details about more than 400 reporting guidelines for health research including animal research. Each guideline entry includes a summary and links to the full information: http://www. equator-network.org/

There are myriad guidelines. Among the most popular are:

- PRISMA systematic reviews and meta-analyses
- STROBE observational studies in epidemiology
- PRISMA ScR for scoping reviews

Several general guidelines are frequently used to report research related to veterinary and animal studies:

- CONSORT clinical trials
- STARD studies of diagnostic accuracy
- SAMPL statistical analyses and methods

There are now several guidelines written specifically for veterinary and animal research:

- REFLECT clinical trials involving food animals
- ARRIVE studies involving animal experimentation
- STROBE VET for observational studies in epidemiology modified specifically for animal studies

Veterinary and animal research reporting guidelines are available at the EQUATOR Network site. MERIDIAN is perhaps better for first stops.

MERIDIAN, MEnagerie of Reporting gulDelines Involving ANimals, is based at Iowa State University. It collects and describes reporting guidelines as they relate to veterinary and animal research and also hosts the RIGOR tool. RIGOR is an interactive website that produces a completed reporting guideline checklist. To use RIGOR, an author or reviewer uploads a manuscript, highlights the text for each checklist item and prints the completed checklist. RIGOR supports ARRIVE, PRISMA, REFLECT, STROBE-VET and CONSORT. The manuscript is not saved on the website. Visit https://meridian.cvm.iastate.edu/.

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An additional useful resource is Author Guidelines on Animal Ethics and Welfare. This set of principles and recommendations was developed by International of Veterinary Editors (IAVE) and can be modified for individual journals. Visit http://www.veteditors.org/resources.

- A survey of the awareness, knowledge, policies and views of veterinary journal Editors-in-Chief on reporting guidelines for publication of research. DJC Grindlay, RS Dean, MM Christopher, and ML Brennan. BMC Vet Res 2014;10:10 https://doi.org/10.1186/1746-6148-10-10
- What is a reporting guideline? EQUATOR Network. http://www.equator-network.org/aboutus/what-is-a-reporting-guideline/ IVI

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