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Special Issue – Systematic Reviews

Introducing a special issue with a focus on systematic reviews

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Abstract

Systematic reviews answer specific review questions by following structured steps and employing specific methods to reduce the risk of bias and to maximize transparency in the process of the review, and systematic review methodology differs from traditional narrative reviews in many ways. As a journal devoted to reviews, it is appropriate that *Animal Health Research Reviews* (AHRR) includes this approach to reviews of the literature. The aim of this special issue of AHRR was to illustrate the scope of articles that can be considered for submission to the systematic review section of this journal for prospective authors and readers.

Keywords: systematic review, protocols, updates.

In a prior editorial in this journal, we introduced journal subscribers to systematic reviews (O'Connor and Sargeant, 2014). As a journal devoted to reviews, it is appropriate that *Animal Health Research Reviews* (AHRR) includes this approach to reviews of the literature. Systematic reviews answer specific review questions by following structured steps and employing specific methods to reduce the risk of bias and to maximize transparency in the process of the review. Thus, the systematic review methodology differs from traditional narrative reviews in many ways. Systematic reviews can be used to address questions related to interventions, exposures, prevalence or incidence, or diagnostic test accuracy. In this special issue, our aim was to document to prospective authors and journal subscribers the scope of articles that can be considered for submission to the systematic review section of the journal.

One novel aspect of systematic reviews is the use of a formal written protocol, created prior to starting the review, which outlines all of the steps and processes that will be used for the review. In this special issue, several examples of protocols are provided to illustrate this part of the systematic review process, which is likely new to many journal subscribers. Two of these published protocols are included, one for a diagnostic test assessment in animal health (Buczinski *et al.*, 2016) and another for evaluation of potential point sources for antimicrobial resistance, a veterinary public health topic (Williams-Nguyen *et al.*, 2016). Other articles included a protocol as part of the supplementary materials. Another protocol document (Cullen *et al.*, 2016) is time stamped and was submitted to the editorial team prior to the start of the review. This will be the journal's preferred approach to protocols for the time being. We encourage authors to submit protocols for review and to have them time stamped and ready for publication. Authors should follow the PRISMA-P reporting guidelines when preparing their protocols (Shamseer *et al.*, 2015; Moher *et al.*, 2016).

We also have included a description of a large multi-systematic review project conducted by members of the International Livestock Research Institute (Alonso *et al.*, 2016a). This unique project illustrates the scope of subject matter than can be covered by the systematic review methodology. Some questions in this large project are related to interventions (control measures), while others are related to prevalence of important animal pathogens, and others are related to economic outcomes. In the paper included in this special issue, the authors

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have reported a summary of the entire process and discuss, in particular, the research gaps identified by the review process. In a companion paper in this special issue, we have included one of the meta-analyses from this project, related to the prevalence of three zoonotic diseases in cattle in Tanzania (Alonso *et al.*, 2016b). In subsequent issues, we anticipate that further systematic reviews and meta-analyses from this project will be published.

Finally, we also have included two more traditional systematic reviews, which focus on intervention questions. The review by Totton *et al.* (2016) focuses on pathogen reducing interventions for pork carcasses and includes a pairwise meta-analysis. The review by Cullen *et al.* (2016) is an update of a prior review, published 10 years ago, evaluating treatments for infectious bovine keratoconjunctivitis (O'Connor *et al.*, 2006). The authors attempted a mixed treatment comparison meta-analysis, but as is sometimes the case, insufficient data were available for that approach, and instead the authors report a pairwise meta-analysis. Note that both of these reviews are reported in a manner consistent with the PRISMA reporting guidelines (Liberati *et al.*, 2009; Moher *et al.*, 2009), which are required for journal submissions to the systematic review section of the journal.

Therefore, in this special issue devoted to systematic reviews, the entire spectrum of systematic review approaches is included; examples are available for the different stages of the review process from protocols to updates, examples are available of the different topics that can be the subject of a review from veterinary public health to value chains to animal health, and examples are available of the different types of review questions (interventions, exposures, diagnostic test assessments and prevalence) (http://www.prisma-statement.org/Default.aspx).

It is worth noting that the journal will be updating the Instructions for Authors so that they specially address the reporting requirements for systematic reviews. Currently the instructions are as follows; however, reporting guidelines are dynamic documents and the latest guidelines should be followed.

Style for systematic reviews. *The PRISMA guidelines should be used to prepare the draft and include each recommended heading. Check the PRISMA website for the latest reporting guidelines for your review as these are being added frequently* (http://www.prisma-statement.org/Default.aspx). *If a recommended heading was not used, please indicate with 1–2 sentences why this heading was not relevant in the cover letter. If the authors did not submit the protocol for peer review, and instead are including the protocol as a supplement with submission of the full review, the date the protocol was finalized and the review started must be stated. For protocols, do not modify the protocol after you start the review. Provide the protocol as supplemental material and any modifications that occurred AFTER the date of protocol was finalized should be noted in the manuscript (see PRIMSA for an explanation of this). Certain aspects may not comply fully with the PRISMA checklist for some reviews. The checklist will not be used as a tool for judging the suitability of manuscripts for publication, but is intended as an aid for authors to clearly, completely and transparently let reviewers and readers know how the review was conducted.*

Style for protocols submitted for peer review. *The PRISMA-P guidelines should be used to prepare the draft and include each recommended heading* (http://www.prisma-statement.org/Extensions/Default.aspx). *If a recommended heading was not used, please indicate with 1–2 sentences why this heading was not relevant. Certain aspects may not comply fully with the PRISMA checklist for some protocols. The checklist will not be used as a tool for judging the suitability of manuscripts for publication in the AHRR Systematic Reviews section, but is intended as an aid for authors to clearly, completely and transparently let reviewers and readers know what authors intend to do.*

Finally, if authors are thinking of conducting a review, we encourage them to contact us directly when planning on submitting a review as they develop the protocol, so we can discuss the suitability of the topic for the journal.

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