## MOOSE Guidelines for Meta-Analyses and Systematic Reviews of Observational Studies*

### Title
Identify the study as a meta-analysis (or systematic review)

### Abstract
Use the journal’s structured format

### Introduction
**Present:**
- The clinical problem
- The hypothesis

A statement of objectives that includes the study population, the condition of interest, the exposure or intervention, and the outcome(s) considered

### Sources
**Describe:**
- Qualifications of searchers (eg, librarians and investigators)
- Search strategy, including time period included in the synthesis and keywords
- Effort to include all available studies, including contact with authors
- Databases and registries searched
- Search software used, name and version, including special features used (eg, explosion)
- Use of hand searching (eg, reference lists of obtained articles)
- List of citations located and those excluded, including justification
- Method of addressing articles published in languages other than English
- Method of handling abstracts and unpublished studies
- Description of any contact with authors

### Study Selection
**Describe**
- Types of study designs considered
- Relevance or appropriateness of studies gathered for assessing the hypothesis to be tested
- Rationale for the selection and coding of data (eg, sound clinical principles or convenience)
- Documentation of how data were classified and coded (eg, multiple raters, blinding, and inter-rater reliability)
- Assessment of confounding (eg, comparability of cases and controls in studies where appropriate)
- Assessment of study quality, including blinding of quality assessors; stratification or regression on possible predictors of study results
- Assessment of heterogeneity

### Results
**Present**
- A graph summarizing individual study estimates and the overall estimate
- A table giving descriptive information for each included study
- Results of sensitivity testing (eg, subgroup analysis)
- Indication of statistical uncertainty of findings

### Discussion
**Discuss**
- Strengths and weaknesses
- Potential biases in the review process (eg, publication bias)
| Assessment of quality of included studies | P18, L346-354 |
| Consideration of alternative explanations for observed results | P18, L346-354 |
| Generalization of the conclusions (i.e., appropriate for the data presented and within the domain of the literature review) | P18, L358-361 |
| Guidelines for future research | P19, L364-366 |
| Disclosure of funding source |  |