#### Item 26: CONCLUSIONS.

Provide a general interpretation of the results in the context of other evidence, and implications for future research.

**Example.** Implications for practice:

“Between 1995 and 1997 five different meta-analyses of the effect of antibiotic prophylaxis on infection and mortality were published. All confirmed a significant reduction in infections, though the magnitude of the effect varied from one review to another. The estimated impact on overall mortality was less evident and has generated considerable controversy on the cost effectiveness of the treatment. Only one among the five available reviews, however, suggested that a weak association between respiratory tract infections and mortality exists and lack of sufficient statistical power may have accounted for the limited effect on mortality.”

Implications for research:

“A logical next step for future trials would thus be the comparison of this protocol against a regimen of a systemic antibiotic agent only to see whether the topical component can be dropped. We have already identified six such trials but the total number of patients so far enrolled (n = 1056) is too small for us to be confident that the two treatments are really equally effective. If the hypothesis is therefore considered worth testing more and larger randomised controlled trials are warranted. Trials of this kind, however, would not resolve the relevant issue of treatment induced resistance. To produce a satisfactory answer to this, studies with a different design would be necessary. Though a detailed discussion goes beyond the scope of this paper, studies in which the intensive care unit rather than the individual patient is the unit of randomisation and in which the occurrence of antibiotic resistance is monitored over a long period of time should be undertaken.”

#### Explanation.

Systematic reviewers sometimes draw conclusions that are too optimistic or do not consider the harms equally as carefully as the benefits, although some evidence suggests these problems are decreasing. If conclusions cannot be drawn because there are too few reliable studies, or too much uncertainty, this should be stated. Such a finding can be as important as finding consistent effects from several large studies.

Authors should try to relate the results of the review to other evidence, as this helps readers to better interpret the results. For example, there may be other systematic reviews about the same general topic that have used different methods or have addressed related but slightly different questions . Similarly, there may be additional information relevant to decision makers, such as the cost-effectiveness of the intervention (e.g., health technology assessment). Authors may discuss the results of their review in the context of existing evidence regarding other interventions.

We advise authors also to make explicit recommendations for future research. In a sample of 2,535 Cochrane reviews, 82% included recommendations for research with specific interventions, 30% suggested the appropriate type of participants, and 52% suggested outcome measures for future research. There is no corresponding assessment about systematic reviews published in medical journals, but we believe that such recommendations are much less common in those reviews.

Clinical research should not be planned without a thorough knowledge of similar, existing research. There is evidence that this still does not occur as it should and that authors of primary studies do not consider a systematic review when they design their studies [[163]](http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1000100#pmed.1000100-Clarke3). We believe systematic reviews have great potential for guiding future clinical research.