#### Item 21: SYNTHESES OF RESULTS.

Present the main results of the review. If meta-analyses are done, include for each, confidence intervals and measures of consistency.

**Examples.** “Mortality data were available for all six trials, randomizing 311 patients and reporting data for 305 patients. There were no deaths reported in the three respiratory syncytial virus/severe bronchiolitis trials; thus our estimate is based on three trials randomizing 232 patients, 64 of whom died. In the pooled analysis, surfactant was associated with significantly lower mortality (relative risk = 0.7, 95% confidence interval = 0.4–0.97, P = 0.04). There was no evidence of heterogeneity (I2 = 0%)”.

“Because the study designs, participants, interventions, and reported outcome measures varied markedly, we focused on describing the studies, their results, their applicability, and their limitations and on qualitative synthesis rather than meta-analysis.”

“We detected significant heterogeneity within this comparison (I2 = 46.6%; χ2 = 13.11, df = 7; P = 0.07). Retrospective exploration of the heterogeneity identified one trial that seemed to differ from the others. It included only small ulcers (wound area less than 5 cm2). Exclusion of this trial removed the statistical heterogeneity and did not affect the finding of no evidence of a difference in healing rate between hydrocolloids and simple low adherent dressings (relative risk = 0.98, [95% confidence interval] 0.85 to 1.12; I2 = 0%).”

#### Explanation.

Results of systematic reviews should be presented in an orderly manner. Initial narrative descriptions of the evidence covered in the review (see Item 18) may tell readers important things about the study populations and the design and conduct of studies. These descriptions can facilitate the examination of patterns across studies. They may also provide important information about applicability of evidence, suggest the likely effects of any major biases, and allow consideration, in a systematic manner, of multiple explanations for possible differences of findings across studies.

If authors have conducted one or more meta-analyses, they should present the results as an estimated effect across studies with a confidence interval. It is often simplest to show each meta-analysis summary with the actual results of included studies in a forest plot (see Item 20). It should always be clear which of the included studies contributed to each meta-analysis. Authors should also provide, for each meta-analysis, a measure of the consistency of the results from the included studies such as I2 (heterogeneity; see [Box 6](http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1000100#pmed-1000100-box006)); a confidence interval may also be given for this measure. If no meta-analysis was performed, the qualitative inferences should be presented as systematically as possible with an explanation of why meta-analysis was not done, as in the second example above . Readers may find a forest plot, without a summary estimate, helpful in such cases.

Authors should in general report syntheses for all the outcome measures they set out to investigate (i.e., those described in the protocol; see Item 4) to allow readers to draw their own conclusions about the implications of the results. Readers should be made aware of any deviations from the planned analysis. Authors should tell readers if the planned meta-analysis was not thought appropriate or possible for some of the outcomes and the reasons for that decision.

It may not always be sensible to give meta-analysis results and forest plots for each outcome. If the review addresses a broad question, there may be a very large number of outcomes. Also, some outcomes may have been reported in only one or two studies, in which case forest plots are of little value and may be seriously biased.

Of 300 systematic reviews indexed in MEDLINE in 2004, a little more than half (54%) included meta-analyses, of which the majority (91%) reported assessing for inconsistency in results.