

## How to Use an Overview EBM Working Group

### Relevance?

Can the results be applied to my patients?  
Is it common?  
If true, will the results require me to change my practice?

### Are the results valid?

Did the overview address a focused clinical question?  
Were the criteria for article inclusion appropriate?  
Is it likely that relevant studies were missed?  
Was the validity of the included studies appraised?  
Were the assessments of studies reproducible?  
Were the results similar from study to study?

### What are the results?

If true, will the results require me to change my practice?  
What are the overall results of the review?  
How precise are the results?

### Search strategies for review articles and meta-analysis.

Best sample search - meta-analysis (pt. or [review (pt) and medline (textword)]).  
Maximize retrieval - meta-analysis (pt) or overview (textword) or meta-anlysis (textword) or meta-analysis (textword) or [review (pt) and medline (textword)].

Reference: JAMA 1994; 272: 1367-1371. ACP Journal Club May/June 1996 A-13.

### Understanding an Overview

An overview is a systematic review and summary of the medical literature.

A meta-analysis is an overview that uses quantitative methods to summarize the results.

The tests of homogeneity gauge whether differences in the results of individual studies are greater than if all studies showed same effect and the observed differences were due to chance.

For meta-analyses of therapy, the results will be reported as in for articles on therapy:

|             | Outcome |   |                 |
|-------------|---------|---|-----------------|
|             | +       | - | Risk of Outcome |
| Treatment y | a       | b | $y=a/a+b$       |
| Control x   | c       | d | $x=c/c+d$       |

The absolute risk reduction is the difference in risk between control group (x) and treated group (y):  
 $ARR=x-y$ .

The relative risk or risk ratio, is the ratio of risk in treated groups (y) to risk in control group (x):  $RR=y/x$ .

The number needed to treat is the inverse of the absolute risk reduction  $NNT=1/ARR=1/x-y$ .