

How are the numbers calculated in a Summary of Findings Table?

There are 3 main numbers calculated and presented for an outcome in a Summary of Findings Table:

1. The **relative effect** (e.g. Relative Risk, Odds Ratio, Mean Difference or Standardised Mean Difference)
2. The **assumed risk** or score in a group of people who do not receive the intervention (e.g. baseline risk)
3. The **corresponding risk** or score in a group of people who do receive the intervention.

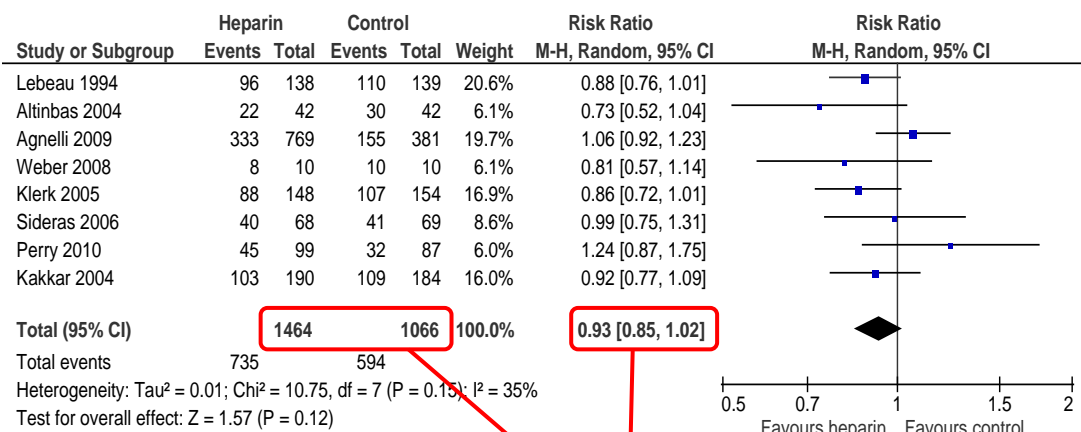
Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk usual care	Corresponding risk self management				
Death (follow-up: 12 months)	Medium risk population		RR 0.93 (0.85 to 1.02)	2530 (8)	⊕⊕⊕○ moderate	
	649 per 1000	604 per 1000 (552 to 662)				
Quality of Life St George's Respiratory Questionnaire. Scale from: 0 to 100. (follow-up: 3-12 months)	The mean quality of life ranged across control groups from was 38 to 60 points	The mean quality of Life in the intervention groups was 2.58 lower (5.14 to 0.02 lower)		698 (7)	⊕⊕⊕○ moderate	Lower score indicates better quality of life. A change of less than 4 points is not shown to be important to patients.

These numbers are based on the meta-analysis of an outcome and the absolute effects across different groups of people at different risks. Some numbers are automatically imported and calculated in GRADEpro, but other numbers need to be entered into GRADEpro manually and require some decision making on the part of the author.

As can be seen in the outcomes in the Summary of Findings Table above, the numbers are calculated and presented differently depending on the type of outcome: dichotomous or continuous.

Presentation of a DICHOTOMOUS OUTCOME (Relative Risk and Odds Ratio)

Example: Risk of death with the use of low-molecular weight heparin (LMWH) versus placebo (control)



Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk usual care	Corresponding risk self management				
Death (follow-up: 12 months)	Medium risk population		RR 0.93 (0.85 to 1.02)	2530 (8)	⊕⊕⊕○ moderate	
	649 per 1000	604 per 1000 (552 to 662)				

The relative risk with confidence intervals and the number of participants and number of studies are automatically taken from the meta-analysis and added to the SoF.

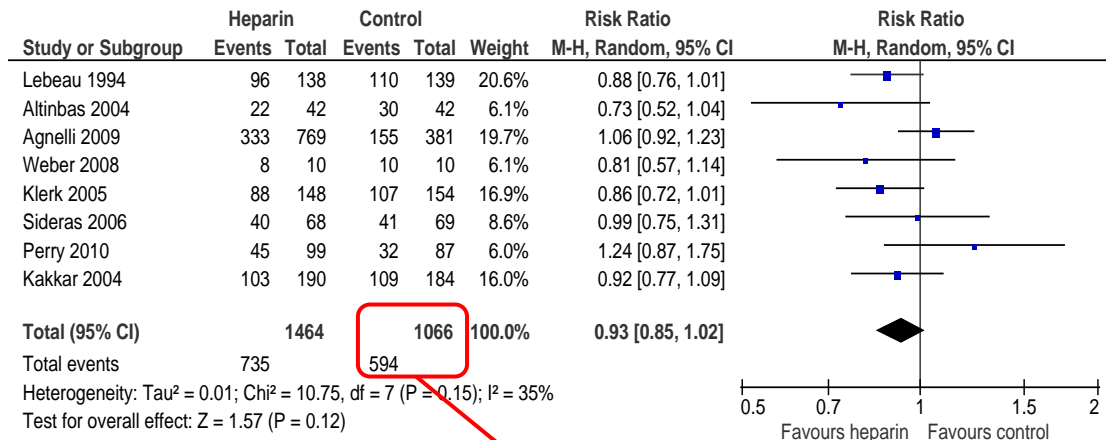
Authors must determine what assumed risk to enter and then the corresponding risk is automatically calculated.

Determine the assumed risk

Authors can choose which assumed risk to present. There are 4 suggestions for what to choose:

1. present mean baseline risk from the studies in the meta-analysis. GRADEpro automatically calculates the mean as the total number of events in the control group divided by the total number of patients in the control groups.

In this example, it would be $594/1066 = 557$ out of 1000.



Automatic calculations in GRADEpro

Outcome: Mortality at 12 months

dichotomous continuous

pooled not pooled range of effects single study not measured not reported

Number of participants: Intervention with event 735 total 1464 50.2 %

Control with event 594 total 1066 55.7 %

Control risk: Low 0 % Moderate 64.9 % High 0 %

Label: Low Moderate High

Estimate of the effect Relative: RR of 0.93 95% CI from 0.85 to 1.02

Auto absolute effect calculation Absolute: 39 fewer per 1000 95% CI from 84 to 11

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Median risk calculated by GRADEpro from meta-analysis

2. present the median control group risk from the studies included in a meta-analysis. This is automatically calculated by GRADEpro and is the “medium risk”.
3. present up to 3 risks based on the control group risks in the studies included in the meta-analysis. You can calculate a low, medium and high assumed risk from the studies. Alternatively, for a high and low risk population you can choose the second highest and second lowest control group risks in the included studies.
4. present a baseline risk from observational studies. You may enter a low, medium, or high risk.

Calculate the corresponding risk

Risk Ratio: The assumed risk is multiplied by the Risk Ratio; the confidence intervals are calculated in the same way.

Relative Risk (0.93) X 649 = **604**
 Lower confidence interval (0.85) X 649 = **552**
 Upper confidence interval (1.02) X 649 = **662**

Medium risk population		RR 0.93
649 per 1000	604 per 1000	(0.85 to 1.02)
	(552 to 662)	

Odds Ratio: OR is first converted to RR. Then calculated as a risk ratio as above.

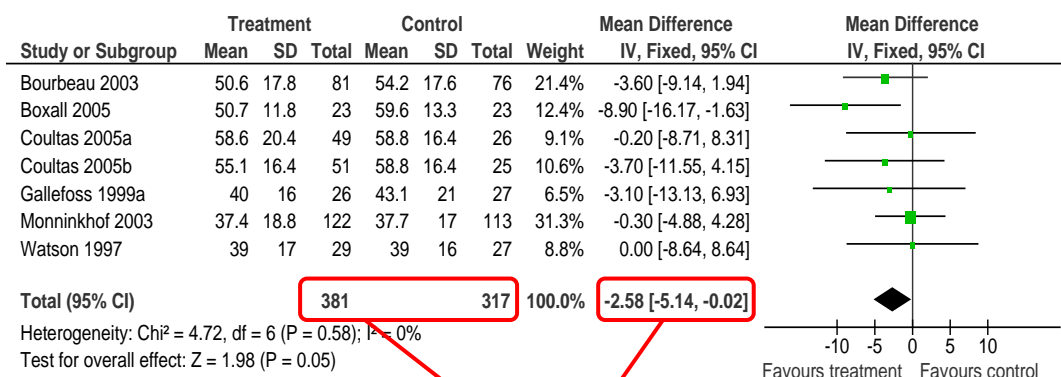
$$RR = \frac{OR}{1 - (R_A \times (1 - OR))}$$

where R_A is the assumed risk.

Hazard Ratios and Rate Ratios can also be converted. See the HELP file in GRADEpro or the Cochrane Handbook (Chapter 11) for more information about these conversions.

Presentation of a CONTINUOUS OUTCOME (Mean difference)

Example: Quality of life score when people with chronic obstructive pulmonary disease participate in a self-management programme versus when they receive usual care



Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk usual care	Corresponding risk self management				
Quality of Life St George's Respiratory Questionnaire. Scale from: 0 to 100. (follow-up: 3-12 months)	The mean quality of life ranged across control groups from 38 to 60 points	The mean quality of Life in the intervention groups was 2.58 lower (5.14 to 0.02 lower)		698 (7)	⊕⊕⊕○ moderate	Lower score indicates better quality of life. A change of less than 4 points is not shown to be important to patients.

Determine the assumed risk

Determine the range of scores at end of study in the control group.

From the meta-analysis in the example, it ranges from **38 to 60**.

Control		
Mean	SD	Total
54.2	17.6	76
<u>59.6</u>	13.3	23
58.8	16.4	26
58.8	16.4	25
43.1	21	27
<u>37.7</u>	17	113
39	16	27

Determine the corresponding risk

The corresponding risk does not need to be calculated. It is the mean difference from the meta-analysis.

It essentially means that the quality of life score when people participated in the self management programme was 2.58 points (5.14 to 0.02) lower than when they received usual care.

Standardised Mean Differences can also be presented. There are a number of options for presentation. See the HELP file in GRADEpro or the Cochrane Handbook (Chapter 11) for more information about these calculations.