# Primer for database of Cochrane Reviews

## Simon Schwab

## April 16, 2019

# Contents

1	Data	abase content	2
	1.1	Showcase 1: Acupuncutre in patients with asthma	2
	1.2	Merging aliases in outcome measures	3
	1.3	Table of Systematic Reviews	4
	1.4	Searching the database	4
2	A m	neta-analysis example	5

The objective of this document is an overview of the content and the structure of the database containing thousends of meta-analyes and systematic reviews by the Cochrane Library. <sup>1</sup>

#### 1 Database content

There are a total of 5,016 systematic reviews with 0 studies in the database. Some of the studies may be shared between reviews. The total number of studies in the database is 52,995. We explore a review as a showcase to fully understand the structure and content of the database.

### 1.1 Showcase 1: Acupuncutre in patients with asthma

The objective of this review (McCarney et al., 2004) was to assess whether there is evidence from randomized controlled trials (RCTs) that asthma patients benefit from acupuncture (file.nr = 3). The review included 12 studies. This number has been determined after searching for studies on databases (CENTRAL, MEDLINE, etc.) using the keywords "asthma" and "acupunctur\*". Studies from the search results were evaluated for inclusion. Some common reasons for exclusion were, for example, no control group, no randomization, or RCT in another domain, such as acupunture with healthy individuals or with individuals having other lung conditions. The primary outcome was lung function that can be determined by three measures, these were

- PERF (peak expiratory flow rates),
- FEV1 (forced expiratory volume in one second),
- and FVC (and forced vital capacity).

	Comparisons
Comparison 1	Needle acupuncture versus sham needle acupuncture
Comparison 2	Laser acupuncture versus sham laser acupuncture
Comparison 3	Needle acupuncture versus sham laser acupuncture

Table 1: The review contained three comparison types.

Secondary outcomes were symptoms, medication use, quality of life and two more. In the data synthesis SMD or WMD were used for continuous variables, and risk ratios for dicotomous variables. Acupuncture strategies differend considerably between studies. There were two types of acupunture, needles and laser. There were also different types of control conditions, for example targeting non acupuncture points, targeting acupuncture points not related to asthma, or a pseudo intervention. The review analyzed needle and laser acupuncture separately and derrived three types of comparisons, see Table 1. The studies also reported various types of outcomes. The database entries for a review consists of all the outcomes reported across all the single studies (and potentially subgroups and comparisons). The main database entries are shown in Tables 2 and 3.

We found three potential errors in the data. One entry of Tandon 1991 is comparison.nr = 1 while all the other entries are comparison.nr = 2, however, Tandon 1991 is declared a laser acupunture study. Hirsch 1994 is a study with children, see subgroup.name, however, there are some consistencies in subgroup.nr. Last, Biernacki 1998 has a missing value in one of its entries in subgroup.name and a 0 in subgroup.nr while the other entries contain "Adult" and "1".

<sup>1</sup>https://www.cochranelibrary.com)

	comp.nr	comp.name	out.nr	outcome.name	out.measures	sub	sub.name	study.name	
101	1	NEEDLE	5	FVC after treatmen	Mean Differen	0		Biernacki 1998	
103	1	NEEDLE	7	FEV1 after treatme	Std. Mean Dif	1	Adults	Biernacki 1998	
113	1	NEEDLE	15	Quality of life fo	Mean Differen	1	Adults	Biernacki 1998	
96	1	NEEDLE	1	Morning PEFR after	Std. Mean Dif	1	Adults	Christensen 1984	
98	1	NEEDLE	3	Symptom scores (pa	Mean Differen	1	Adults	Christensen 1984	
105	1	NEEDLE	8	Perceived improvem	Risk Ratio	1	Adults	Dias 1982	
114	2	LASER A	1	Morning PEFR after	Mean Differen	1	Children	Hirsch 1994	
115	2	LASER A	2	FEV1 after treatme	Std. Mean Dif	2	Children	Hirsch 1994	
116	2	LASER A	3	Symptom scores cro	Std. Mean Dif	2	Children	Hirsch 1994	
106	1	NEEDLE	8	Perceived improvem	Risk Ratio	1	Adults	Joos 2000	
125	3	NEEDLE	1	Morning PEFR after	Mean Differen	1	Adults	Malmström 2002	
126	3	NEEDLE	2	Medication usage (	Mean Differen	1	Adults	Malmström 2002	
97	1	NEEDLE	2	FEV1 after treatme	Mean Differen	1	Adults	Medici 2002	
99	1	NEEDLE	4	FEV1 at follow-up:	Mean Differen	1	Within 4 w	Shapira 2002	
104	1	NEEDLE	7	FEV1 after treatme	Std. Mean Dif	1	Adults	Shapira 2002	
107	1	NEEDLE	9	Symptom scores cro	Std. Mean Dif	1	Adults	Shapira 2002	
110	1	NEEDLE	12	Medication usage	Mean Differen	1	Adults	Shapira 2002	
109	1	NEEDLE	11	Symptom scores	Symptom score	1	Adults	Tandon 1991	
111	1	NEEDLE	13	Medication usage	beta-agonist	1	Adults	Tandon 1991	
117	2	LASER A	4	Medication usage	beta-agonist	1	Adults	Tandon 1991	
118	2	LASER A	5	Symptom scores	Symptom score	1	Adults	Tandon 1991	
119	2	LASER A	6	Perceived improvem	Odds Ratio	1	Adults	Tandon 1991	
120	2	LASER A	7	FVC after treatmen	Mean Differen	1	Adults	Tandon 1991	
121	2	LASER A	8	Morning peak flow	L/min	1	Adults	Tandon 1991	
122	2	LASER A	9	FEV1	L/min	1	Adults	Tandon 1991	
123	2	LASER A	10	FVC	Litres	1	Adults	Tandon 1991	
124	2	LASER A	11	Evening peak flow	Litres	1	Adults	Tandon 1991	
100	1	NEEDLE	4	FEV1 at follow-up:	Mean Differen	1	Within 4 w	Tashkin 1985	
102	1	NEEDLE	6	FEV1 at follow-up:	Mean Differen	1	Within 4 w	Tashkin 1985	
108	1	NEEDLE	10	Symptom scores (cr	Mean Differen	1	Adults	Tashkin 1985	
112	1	NEEDLE	14	Medication usage (	Mean Differen	1	Adults	Tashkin 1985	

Table 2: Database entries of a Cochrane systematic review on acupuncture for chronic asthma. Table is sorted by study name. Numbers on the left are the corresponding line number in the database.

In sum, there can be a database entry per study, comparison, outcome, and subgroup. In this review, identical outcomes of the same comparison have been synthetized with respect to subgroups. Within each comparisons, the outcomes are categorized in numbers outcome.nr. For example, Shapira 2002 and Tashkin 1985 both report outcome.nr = 4. The outcome.nr starts form 1 on within each comarison, for example, there are 15 outcomes (1–15) in comparison 1, 11 (1–11) in comparison 2, and two (1–2) in comparison 3, see Table 4. In this review, in only two primary main outcomes and one secondary outcome pooling was possible. We created a new variable pool.nr, outcomes with the same pool.nr can be combined for meta-analyses because they belong to the same review and have the same comparison, outcome and subgroup.

#### 1.2 Merging aliases in outcome measures

The most common outcome measures in the database are risk ratios, mean differences, and odds ratios. However, the values in outcome.measure have inconsitencies that need to be resolved, for example "odds ratio", "Odds Ratio", "odds ratios", "OR", etc. Altogether, there are 258 unique outcome measures present. We performed a cleanup of the values and defined a set of aliases for merging to reduce the heterogenity in values (Table 5). In Tables 6 and 7 the relative frequencies of outcome measures are shown before and after merging. Risk ratios make up 50% of all the outcome measures. In Tables 8–20, the aliases groups are shown that have been merged into one category, i.e. the top category in the tables.

	study.name	study.year	effect	se	events1	total1	mean1	sd1	events2	total2	mean2	sd2
101	Biernacki 1998	1998	0.07	2.08	0.00	23.00	3.33	0.85	0.00	23.00	3.26	9.94
103	Biernacki 1998	1998	0.03	0.29	0.00	23.00	2.03	0.60	0.00	23.00	2.01	0.66
113	Biernacki 1998	1998	-11.00	10.77	0.00	23.00	147.00	35.00	0.00	23.00	158.00	38.00
96	Christensen 1984	1984	0.38	0.49	0.00	8.00	360.00	110.00	0.00	9.00	320.00	90.00
98	Christensen 1984	1984	0.00	0.00	0.00	8.00	-55.00	0.00	0.00	9.00	-45.00	0.00
105	Dias 1982	1982	0.75	0.30	6.00	10.00	0.00	0.00	8.00	10.00	0.00	0.00
114	Hirsch 1994	1994	-3.00	2.14	0.00	32.00	105.00	8.88	0.00	32.00	108.00	8.20
115	Hirsch 1994	1994	-0.48	0.32	0.00	20.00	103.23	14.52	0.00	20.00	110.99	16.81
116	Hirsch 1994	1994	0.00	0.00	0.00	32.00	0.75	0.00	0.00	32.00	0.71	0.00
106	Joos 2000	2000	1.68	0.28	15.00	19.00	0.00	0.00	8.00	17.00	0.00	0.00
125	Malmström 2002	2002	-31.78	46.87	0.00	10.00	357.50	117.55	0.00	14.00	389.28	106.80
126	Malmström 2002	2002	-0.88	0.78	0.00	8.00	1.78	0.76	0.00	8.00	2.66	2.07
97	Medici 2002	2002	1.70	4.97	0.00	22.00	92.00	17.80	0.00	23.00	90.30	15.40
99	Shapira 2002	2002	0.00	7.72	0.00	19.00	70.00	26.15	0.00	19.00	70.00	21.18
104	Shapira 2002	2002	0.22	0.33	0.00	19.00	73.00	13.08	0.00	19.00	70.00	13.08
107	Shapira 2002	2002	0.00	0.00	0.00	23.00	0.22	0.00	0.00	23.00	0.24	0.00
110	Shapira 2002	2002	-1.40	4.00	0.00	23.00	6.70	13.17	0.00	23.00	8.10	13.94
109	Tandon 1991	1991	-1.71	1.50	0.00	15.00	0.00	0.00	0.00	15.00	0.00	0.00
111	Tandon 1991	1991	0.10	0.50	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
117	Tandon 1991	1991	0.10	0.50	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
118	Tandon 1991	1991	-1.71	1.50	0.00	15.00	0.00	0.00	0.00	15.00	0.00	0.00
119	Tandon 1991	1991	1.00	0.77	5.00	15.00	0.00	0.00	5.00	15.00	0.00	0.00
120	Tandon 1991	1991	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
121	Tandon 1991	1991	-23.70	23.20	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
122	Tandon 1991	1991	0.02	0.06	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
123	Tandon 1991	1991	0.06	0.11	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
124	Tandon 1991	1991	-1.00	26.70	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
100	Tashkin 1985	1985	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
102	Tashkin 1985	1985	-5.40	10.78	0.00	25.00	7.70	32.50	0.00	25.00	13.10	43.00
108	Tashkin 1985	1985	0.00	0.00	0.00	25.00	1.40	0.00	0.00	25.00	-17.20	0.00
112	Tashkin 1985	1985	0.00	0.00	0.00	25.00	-5.40	0.00	0.00	25.00	-9.00	0.00

Table 3: Database entries of a Cochrane systematic review on acupuncture for chronic asthma. Table is sorted by study name.

#### 1.3 Table of Systematic Reviews

We created a data frame data.rev of reviews. Each row is a systematic review/meta-analysis. We fetched the title and year of all the reviews with the package roadoi as this information was not in the database. We added the outcomes that can be pooled across the largest number of studies in a review based on the

textttpool.nr. We selected the two outcomes that have the highest counts, see Table 21. For example, the review "Antibiotic prophylaxis" (3rd row) contained 92 studies, of which 83 studies with outcome "Maternal endometritis" and 82 outcomes "Maternal wound infection" can be pooled. These are the outcomes that belong to the same comparison and subgroup of a reviewe, however, whether this reflects a primary or a secondary outcome of a systematic review is unclear. This had to be determined by looking at the review paper.

#### 1.4 Searching the database

A function pb.search(keyword, data) to look for specific keywords in the data is available. If data is the complete database data keywords are matched againts outcome names, comparisons, subgroups, and study names. If data is the table of reviews data.rev keywords are matched against the title of the review.

### 2 A meta-analysis example

We use the review "Fluvastatin for lowering lipids" (Adams et al., 2018) to conduct a meta-analysis. The data is accessed by file.nr = 6181. In this review, the primary outcome is LDL-cholesterol, the secondary outcome is the total cholesterol. There are various comparisons of different dosages of Fluvastatin vs control, from 2.5 mg to 80 mg. We use comparison.nr = 4 and outcome.nr = 1. This corresponds to the pool.nr1 = 181863 and is the comparison "20 mg vs control" and the outcome "LDL-cholesterol". There are no subgroups. The outcome measure is the mean difference. The result is in Figure 1 and can be compared to section "Analysis 4.1" in the review paper <sup>2</sup>.

### References

Adams, S. P., Sekhon, S. S., Tsang, M. and Wright, J. M. (2018). Fluvastatin for lowering lipids. *Cochrane Database Syst. Rev.* **3** CD012282.

URL http://dx.doi.org/10.1002/14651858.CD012282.pub2

McCarney, R. W., Brinkhaus, B., Lasserson, T. J. and Linde, K. (2004). Acupuncture for chronic

2		
https://www.cochranelibrar	v.com/cdsr/doi/10.100	2/14651858 CD012282 pub2/

	comp.nr	comp.name	out.nr	outcome.name	sub.nr	sub.name	study.name	pool.nr
96	1	NEEDLE A	1	Morning PEFR after treatment	1	Adults	Christensen 1984	50.00
97	1	NEEDLE A	2	FEV1 after treatment (% predic	1	Adults	Medici 2002	51.00
98	1	NEEDLE A	3	Symptom scores (parallel studi	1	Adults	Christensen 1984	52.00
99	1	NEEDLE A	4	FEV1 at follow-up: pooled cros	1	Within 4	Shapira 2002	53.00
100	1	NEEDLE A	4	FEV1 at follow-up: pooled cros	1	Within 4	Tashkin 1985	53.00
101	1	NEEDLE A	5	FVC after treatment: pooled cr	0		Biernacki 1998	54.00
102	1	NEEDLE A	6	FEV1 at follow-up: pooled cros	1	Within 4	Tashkin 1985	55.00
103	1	NEEDLE A	7	FEV1 after treatment: pooled c	1	Adults	Biernacki 1998	56.00
104	1	NEEDLE A	7	FEV1 after treatment: pooled c	1	Adults	Shapira 2002	56.00
105	1	NEEDLE A	8	Perceived improvement in gener	1	Adults	Dias 1982	57.00
106	1	NEEDLE A	8	Perceived improvement in gener	1	Adults	Joos 2000	57.00
107	1	NEEDLE A	9	Symptom scores cross-over stud	1	Adults	Shapira 2002	58.00
108	1	NEEDLE A	10	Symptom scores (crossover stud	1	Adults	Tashkin 1985	59.00
109	1	NEEDLE A	11	Symptom scores	1	Adults	Tandon 1991	60.00
110	1	NEEDLE A	12	Medication usage	1	Adults	Shapira 2002	61.00
111	1	NEEDLE A	13	Medication usage	1	Adults	Tandon 1991	62.00
112	1	NEEDLE A	14	Medication usage (change from	1	Adults	Tashkin 1985	63.00
113	1	NEEDLE A	15	Quality of life follow-up	1	Adults	Biernacki 1998	64.00
114	2	LASER AC	1	Morning PEFR after treatment (	1	Children	Hirsch 1994	65.00
115	2	LASER AC	2	FEV1 after treatment: pooled c	2	Children	Hirsch 1994	66.00
116	2	LASER AC	3	Symptom scores cross-over stud	2	Children	Hirsch 1994	67.00
117	2	LASER AC	4	Medication usage	1	Adults	Tandon 1991	68.00
118	2	LASER AC	5	Symptom scores	1	Adults	Tandon 1991	69.00
119	2	LASER AC	6	Perceived improvement in gener	1	Adults	Tandon 1991	70.00
120	2	LASER AC	7	FVC after treatment: pooled cr	1	Adults	Tandon 1991	71.00
121	2	LASER AC	8	Morning peak flow	1	Adults	Tandon 1991	72.00
122	2	LASER AC	9	FEV1	1	Adults	Tandon 1991	73.00
123	2	LASER AC	10	FVC	1	Adults	Tandon 1991	74.00
124	2	LASER AC	11	Evening peak flow rates	1	Adults	Tandon 1991	75.00
125	3	NEEDLE A	1	Morning PEFR after treatment (	1	Adults	Malmström 2002	76.00
126	3	NEEDLE A	2	Medication usage (parallel gro	1	Adults	Malmström 2002	77.00

Table 4: The pool number pool.nr indicates which studies have the same subgroup, outcome, and comparison. If these variables mach, data can be pooled. In this review, data from two studies were pooled for three outcomes outcome.nr 4, 7, and 8).

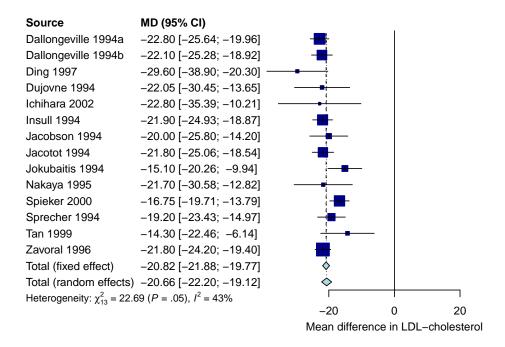


Figure 1: Forest plot. Effect of fluvastatin on LDL-cholesterol.

	before merging	after merging
No. of unique outcome names	258	178

Table 5: Outcome names have been merged to account for inconsistencies.

	Percent
Risk Ratio	50.00
Mean Difference	21.80
Odds Ratio	10.60
Std. Mean Difference	8.60
Peto Odds Ratio	4.10
Risk Difference	1.30
Hazard Ratio	1.30
Rate Ratio	0.40
(Other)	0.10
rate difference	0.10
others	1.70

Table 6: Most frequent outcome measures before merging.

asthma. Cochrane Database Syst. Rev. CD000008.

URL http://dx.doi.org/10.1002/14651858.CD0000008.pub2

	Percent
Risk Ratio	50.10
Mean Difference	22.10
Odds Ratio	10.60
Std. Mean Difference	8.70
Peto Odds Ratio	4.10
Hazard Ratio	1.40
Risk Difference	1.30
Rate Ratio	0.50
Rate difference	0.10
% change	0.10
others	1.00

Table 7: Most frequent outcome measures after merging.

	names
1	Risk Ratio
2	Risk Ratio (Non-event)
3	Relative Risk
4	Relative risk
5	RR
6	Incidence Risk Ratio
7	risk ratio
8	rr
9	IRR
10	RR Ratios
11	Relatvie risks
12	Risk ratio

Table 8: List of outcome measure that are aliases and have been merged.

	names
1	Mean Difference
2	Mean difference
3	MD
4	mean difference
5	Mean Difference L/mn
6	mean difference (L)
7	mean diff (L/min)
8	MD in SBP
9	MD in DBP
10	MD in serum Ca
11	MD in serum K
12	Mean diff in SBP
13	Mean diff in DBP
14	MD or Difference-in-Differences (SDs)
_15	Mean Difference (SDs)

Table 9: List of outcome measure that are aliases and have been merged.

	names
1	Change in SBP
2	Change in DBP
3	Change in PRA
4	Change in Aldosterone
5	Change in Noradrenaline
6	Change in Adrenaline
7	Change in Cholesterol
8	Change in LDL
9	Change in HDL
10	Change in Triglyceride
11	Change in duration
12	Change in MPAP
13	Change in MAP
14	Change in HR
15	immediate change in level
16	change in slope
17	Change in level and slope

Table 10: List of outcome measure that are aliases and have been merged.

	names
1	Std. Mean Difference
2	SMD
3	SMDs

Table 11: List of outcome measure that are aliases and have been merged.

	names
1	Hedges' g
2	Hedges' g
3	Hedges'g
4	Hedges ' g

Table 12: List of outcome measure that are aliases and have been merged.

	names
1	% change
2	% change from baseline
3	% increase
4	% Rate difference
5	Annualized risk difference (%)
6	changes [%]
7	changes in MVC [%]
8	Mean % change
9	Mean Difference [%]
10	Risk Difference (%)

Table 13: List of outcome measure that are aliases and have been merged.

	names
1	Odds Ratio
2	Odds Ratio (Non-event)
3	Odds ratio
4	odds ratio
5	odds ratios
6	Odds Ratios
7	Paired Odds Ratio
8	Adjusted Odds Ratio
9	Adjusted odds ratio

Table 14: List of outcome measure that are aliases and have been merged.

	names
1	Peto Odds Ratio
2	Peto Odds Ratio (Non-event)

Table 15: List of outcome measure that are aliases and have been merged.

	names
1	Hazard Ratio
2	HR
3	Hazard ratio
4	Survival HR
5	Hazards ratio
6	hazards ratio
7	hazard ratio
8	HR and variance

Table 16: List of outcome measure that are aliases and have been merged.

	names
1	Rate Ratio
2	Rate ratio
3	Incidence rate ratio
4	Incidence Rate Ratio
5	incidence rate ratio
6	rate ratio

Table 17: List of outcome measure that are aliases and have been merged.

	names
1	Risk Difference
2	Risk difference (RD)

Table 18: List of outcome measure that are aliases and have been merged.

	names
1	Rate difference
2	rate difference

Table 19: List of outcome measure that are aliases and have been merged.

	names
1	Prevented Fraction
2	Prevented fraction
3	prevented fraction

Table 20: List of outcome measure that are aliases and have been merged.

	15	P-7			-	7 14	-	
	nle.nr	rev.title	rev.year	nr.studies	pool.countl	pool.outlName1	pool.count2	pool.outiName2
<u></u>	606	Risk of fatal and nonfatal lactic acidosis with me	2010	148	148	Lactic acidosis incidence per pa	16	Mean treatment lactate levels (m
7	5432	Surgery for epilepsy	2015	173	114	Proportion with a good outcome o	42	Proportion with a good outcome o
8	3613	Antibiotic prophylaxis versus no prophylaxis for p	2014	95	83	Maternal endometritis	82	Maternal wound infection
4	802	Progressive resistance strength training for impro	2009	107	73	Main lower limb (LL) strength me	29	Strength (grouped by allocation
5	1241	Beta2-agonists for exercise-induced asthma	2013	75	72	Maximal percentage fall in FEV1	55	Side effects
9	4233	Alpha-blockers as medical expulsive therapy for ur	2018	29	29	Stone clearance	57	Stone clearance
7	486	Single dose oral ibuprofen for acute postoperative	2009	89	63	Participants with at least 50% p	51	Participants with at least 50% p
8	3942	Maintenance treatment with antipsychotic drugs for	2012	63	62	Relapse: independent of duration	40	Relapse: 4 to 6 months
6	5261	Rosuvastatin for lowering lipids	2014	106	59	LDL-cholesterol	55	Total cholesterol
10	2018	Interventions to improve water quality for prevent	2015	64	58	Diarrhoea: all ages	45	Diarrhoea: children $< 5$ years
11	9/	Nicotine replacement therapy versus control for sm	2018	142	56	Smoking cessation at 6+ months f	51	Smoking cessation at 6+ months f
12	854	Treadmill training and body weight support for wal	2017	09	56	Dropouts	38	Walking speed $(m/s)$ at end of tr
13	1894	Single dose oral paracetamol (acetaminophen) for p	2008	51	56	Participants with at least 50% p	53	Quality score of 3 or more
14	3432	Antioxidant supplements for prevention of mortalit	2012	78	56	Mortality in trials with a low o	55	Mortality in 76 trials with a lo
15	944	Beta-lactam versus beta-lactam-aminoglycoside comb	2013	71	55	Treatment failure	52	Blinding (failure)
16	519	Gonadotrophin-releasing hormone antagonists for as	2016	63	54	Clinical pregnancy rate per woma	37	Ongoing pregnancy rate per woman
17	3604	Vitamin D supplementation for prevention of mortal	2014	26	54	All-cause mortality in individua	53	All-cause mortality ('best-worst
18	3846	Fluoride toothpastes of different concentrations f	2010	78	54	D(M)FS increment (prevented frac	54	D(M)FS increment (SMD) - nearest
19	2460	Ribavirin plus interferon versus interferon for ch	2010	83	53	Failure of sustained virological	49	Failure of serum sustained virol
70	435	Decision aids for people facing health treatment o	2017	91	52	Knowledge - all studies	47	Knowledge - studies without high
21	4094	Combined pharmacotherapy and behavioural intervent	2016	53	52	Cessation at longest follow-up	43	Cessation at longest follow-up
22	4124	Biologic interventions for fatigue in rheumatoid a	2016	30	51	All studies - fatigue continuous	32	Anti-TNF and non anti-TNF - fati
23	484	Laparoscopic versus open surgery for suspected app	2010	65	20	Wound infections	45	Intraabdominal abscesses
24	875	Sublingual immunotherapy for allergic rhinitis	2010	49	49	Allergic rhinitis symptom scores	39	Allergic rhinitis symptom scores
22	1550	Pharmacological agents for preventing morbidity as	2013	29	49	Arrhythmias - high risk vs low r	18	Arrhythmias - by drug type
56	5880	Personalised digital interventions for reducing ha	2017	52	49	Quantity of drinking (g/week), b	42	Quantity of drinking (g/week), b
27	3011	Collaborative care for depression and anxiety prob	2012	83	48	Depression response	48	Depression response
28	3002	Chewing gum for postoperative recovery of gastroin	2015	26	47	Time to first flatus	37	Time to first bowel movement
56	4982	Antioxidants for preventing and reducing muscle so	2017	49	47	Muscle soreness at 48 hours; ran	47	Muscle soreness at 48 hours - al
30	681	Single dose oral aspirin for acute postoperative p	2012	29	46	Any adverse event	43	Participants with at least 50% p
31	1111	Beta lactam antibiotic monotherapy versus beta lac	2014	89	46	Clinical failure	40	Any adverse event
32	3520	Intraperitoneal local anaesthetic instillation ver	2014	37	46	Pain (4 to 8 hours)	42	Pain (4 to 8 hours) by form
33	6181	Fluvastatin for lowering lipids	2018	145	46	LDL-cholesterol	4	Total cholesterol
8,	820	Rocuronium versus succinylcholine for rapid sequen	2015	20	45	Excellent versus other intubatio	43	Acceptable versus suboptimal int
32	1073	Stimulation of the wrist acupuncture point PC6 for	2015	29	45	Vomiting	40	Nausea
36	1078	Protein and energy supplementation in elderly peop	2009	63	45	% Weight change	42	Mortality
37	1745	Exercise for osteoarthritis of the knee	2015	54	45	Study withdrawals	42	Detection bias: pain
38	3561	Topical NSAIDs for acute musculoskeletal pain in a	2015	48	45	Local adverse events	45	Adverse event withdrawals
36	1019	Omega 3 fatty acids for prevention and treatment o	2004	84	44	Total mortality	4	Cardiovascular deaths
40	4535	Sequential versus standard triple first-line thera	2016	44	44	Eradication proportion	38	Age of the population

Table 21: Reviews with most frequent outcomes that can be pooled for meta-analysis.