



Editorial considerations for reviews that compare multiple interventions

Saïd Business School, Oxford, UK

March 22, 2013

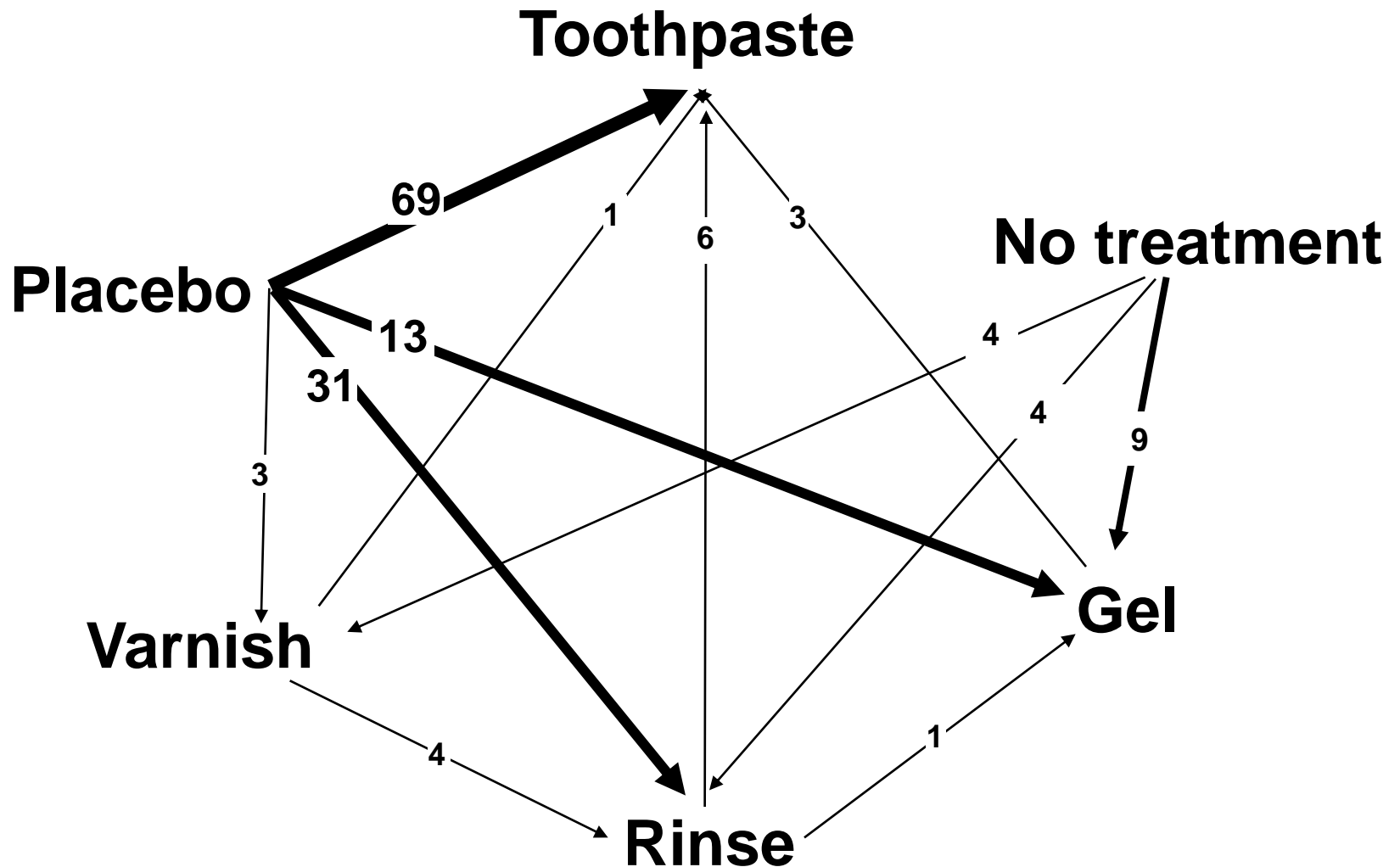


**THE COCHRANE
COLLABORATION®**

Handout E1-L
Introduction

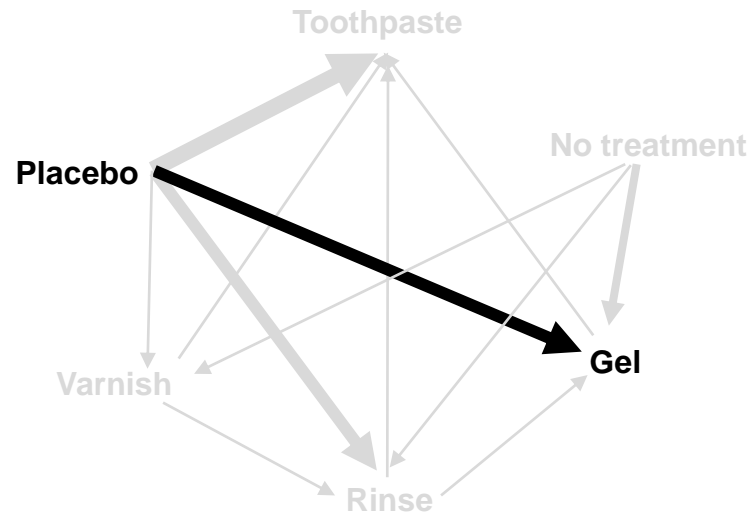
Lorne Becker

A network of trials: topical fluoride therapy



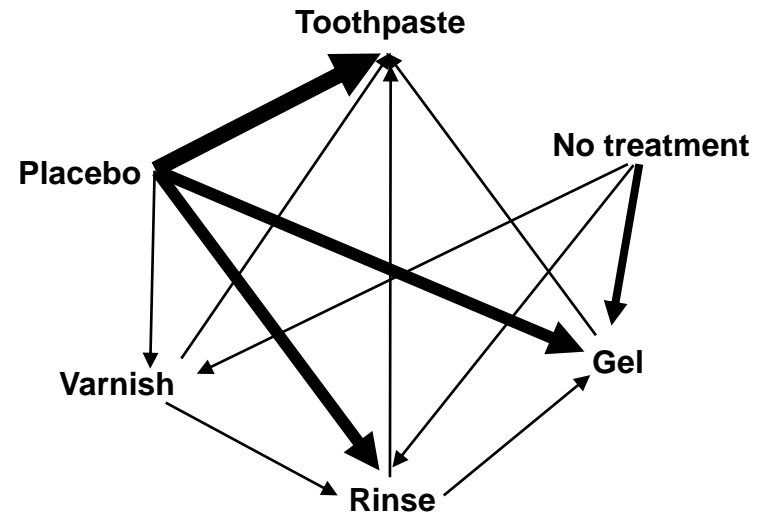
How would this evidence be synthesized in The Cochrane Library?

- Typically a series of pair-wise meta-analyses



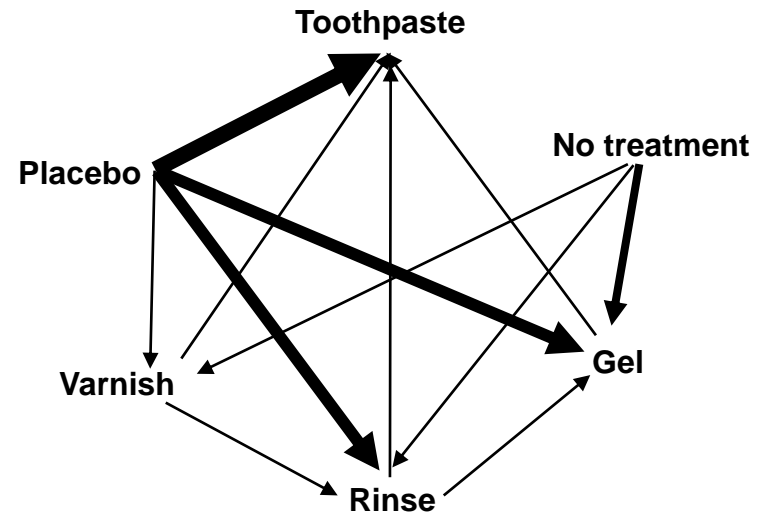
Two New Approaches for Comparing Multiple Interventions

- Overviews
- Network Meta-Analyses



Cochrane Overviews

- “Reviews of Reviews”
- Present results from the individual Reviews without further analyses
- “Friendly Front End”
- Pointers to the full review

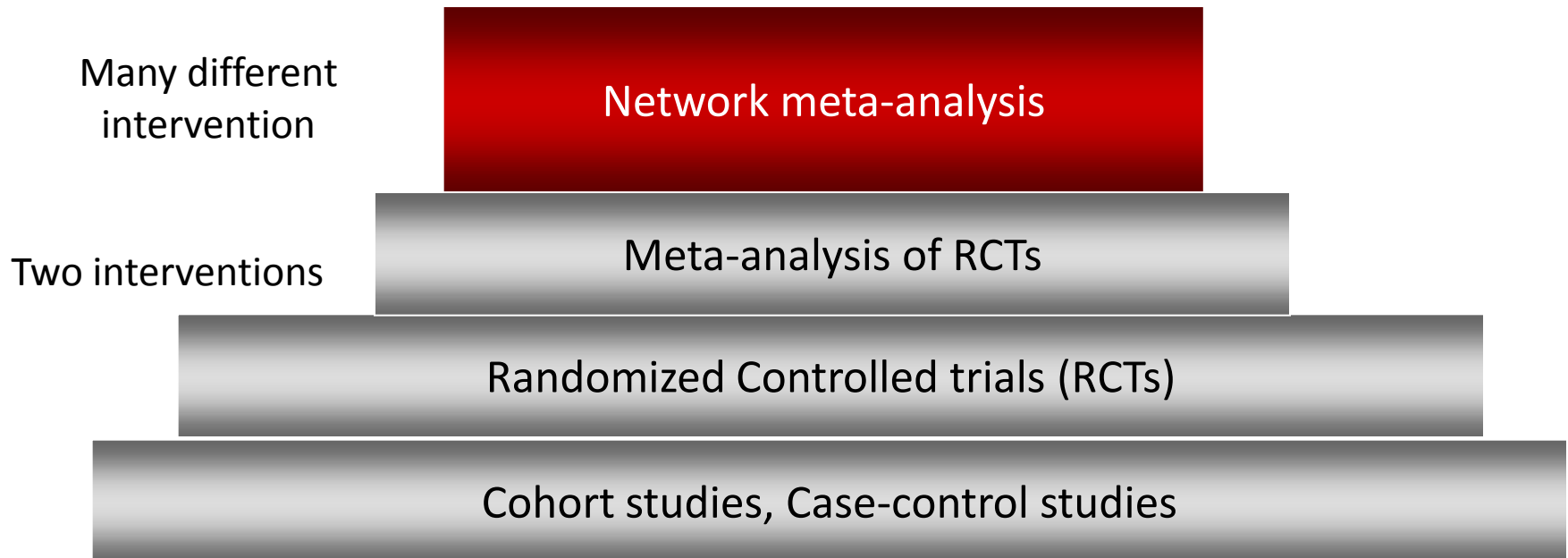


Network meta-analysis

Other names:

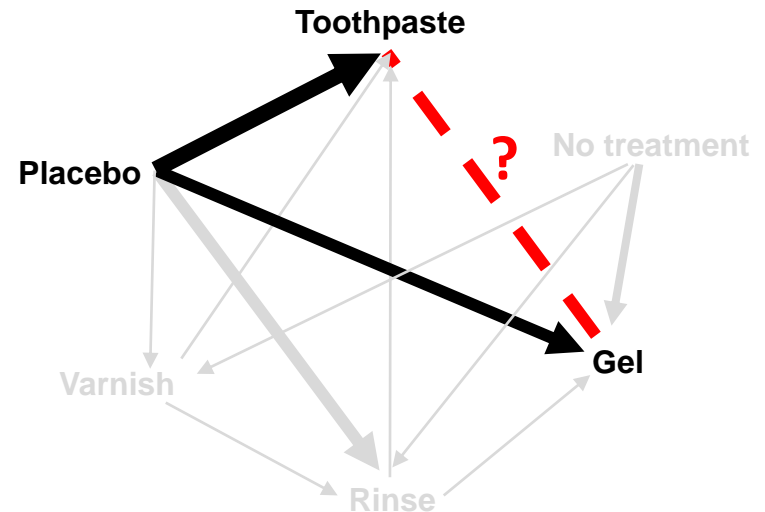
Multiple-treatments meta-analysis,

Mixed-treatment comparison



Indirect Comparisons

- Trials have compared
 - Toothpaste with Placebo
 - Gel with Placebo
- What can we say about Toothpaste vs. Gel (an Indirect comparison)?
- Formal methods available with network meta-analysis
- “Informal” comparisons may be made by readers, in the absence of formal comparisons



Pharmacological interventions for alcohol withdrawal

Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Control	Treatments versus Placebo				
Alcohol withdrawal seizures - Benzodiazepine objective Follow-up: mean 10 days	Study population		RR 0.16 (0.04 to 0.69)	324 (3 studies)	□□□□ moderate ¹	
	80 per 1000	13 per 1000 (3 to 55)				
	Medium risk population					
Alcohol withdrawal seizures - Anticonvulsants objective Follow-up: mean 10 days	Study population		RR 0.52 (0.25 to 1.07)	1108 (10 studies)	□□□□ moderate ²	
	101 per 1000	53 per 1000 (25 to 108)				
	Medium risk population					
Adverse events - Benzodiazepine subjective Follow-up: mean 10 days	Study population		RR 3.28 (0.31 to 34.52)	71 (2 studies)	□□□□ moderate ³	
	28 per 1000	92 per 1000 (9 to 967)				
	Medium risk population					
Adverse events - Anticonvulsant subjective Follow-up: mean 10 days	Study population		RR 1.56 (0.74 to 3.31)	663 (7 studies)	□□□□ moderate ⁴	
	50 per 1000	78 per 1000 (37 to 165)				
	Medium risk population					
	34 per 1000	53 per 1000 (25 to 113)				

Course objectives

- by the end of the course, participants should be able...
 - to understand the role and potential of indirect comparisons and network meta-analyses in Cochrane Intervention Reviews and Cochrane Overviews of Reviews;
 - to understand the basic principles and steps involved in indirect comparisons and network meta-analyses;
 - to undertake a simple indirect comparison, and to consider this appropriately alongside a direct comparison of the same two interventions;
 - to support Cochrane editorial bases in their support of review authors undertaking indirect comparisons and network meta-analysis.

Course outline

- Introduction
- Review of published Cochrane Overviews
- Basic principles of indirect comparisons & network meta-analysis
- Key Assumptions in indirect comparisons & network meta-analysis

LUNCH

- Practical session – “Would indirect comparisons be appropriate here?”
- Case studies – based on existing titles, protocols and reviews
- Small group discussion – implications for CRGs
- Proposed strategies for addressing indirect comparisons and network meta-analysis in Cochrane Intervention Reviews and Overviews



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