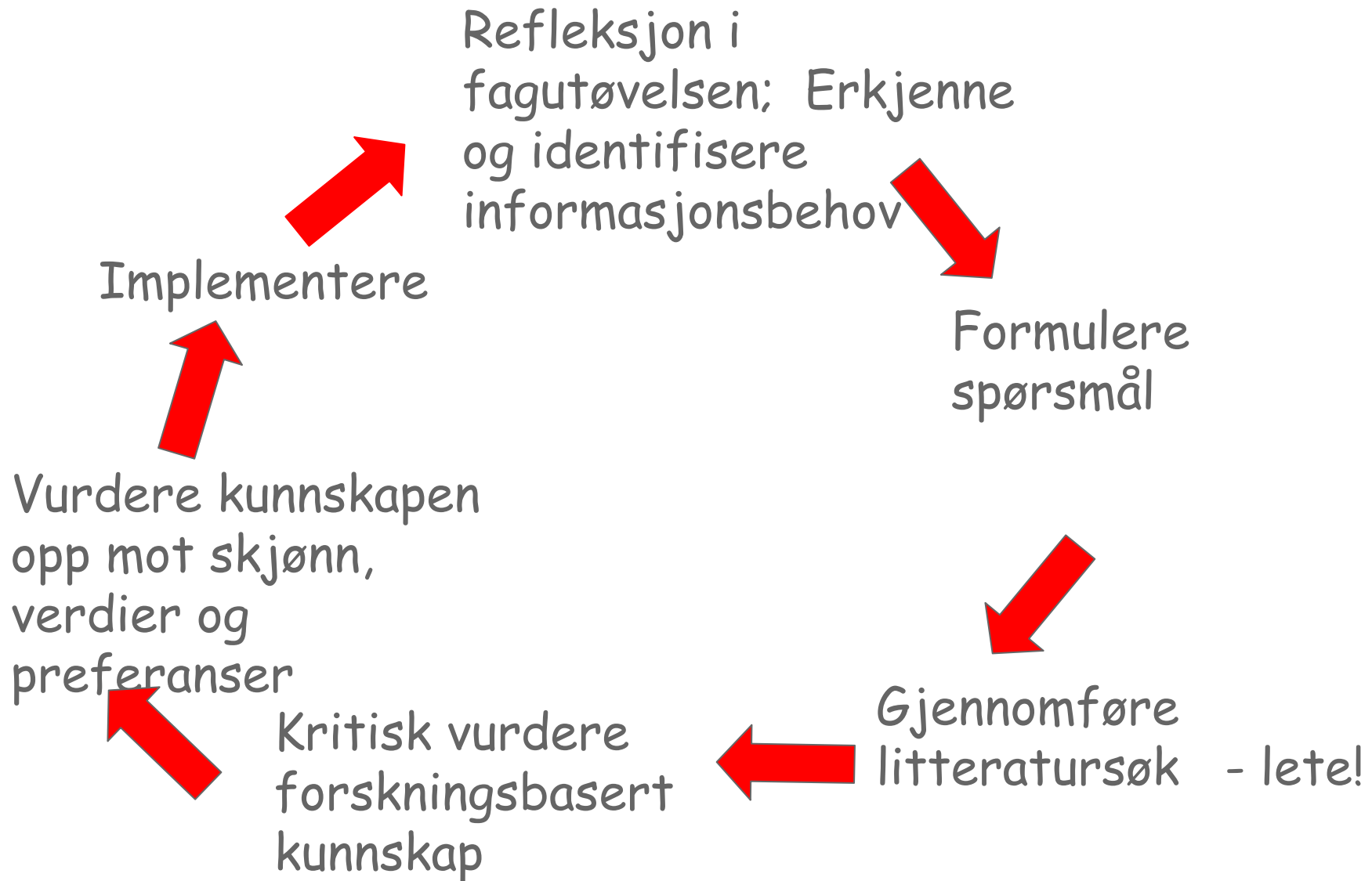


Systematiske oversikter
Meta-analyser
Cochrane collaboration
Internettressurser



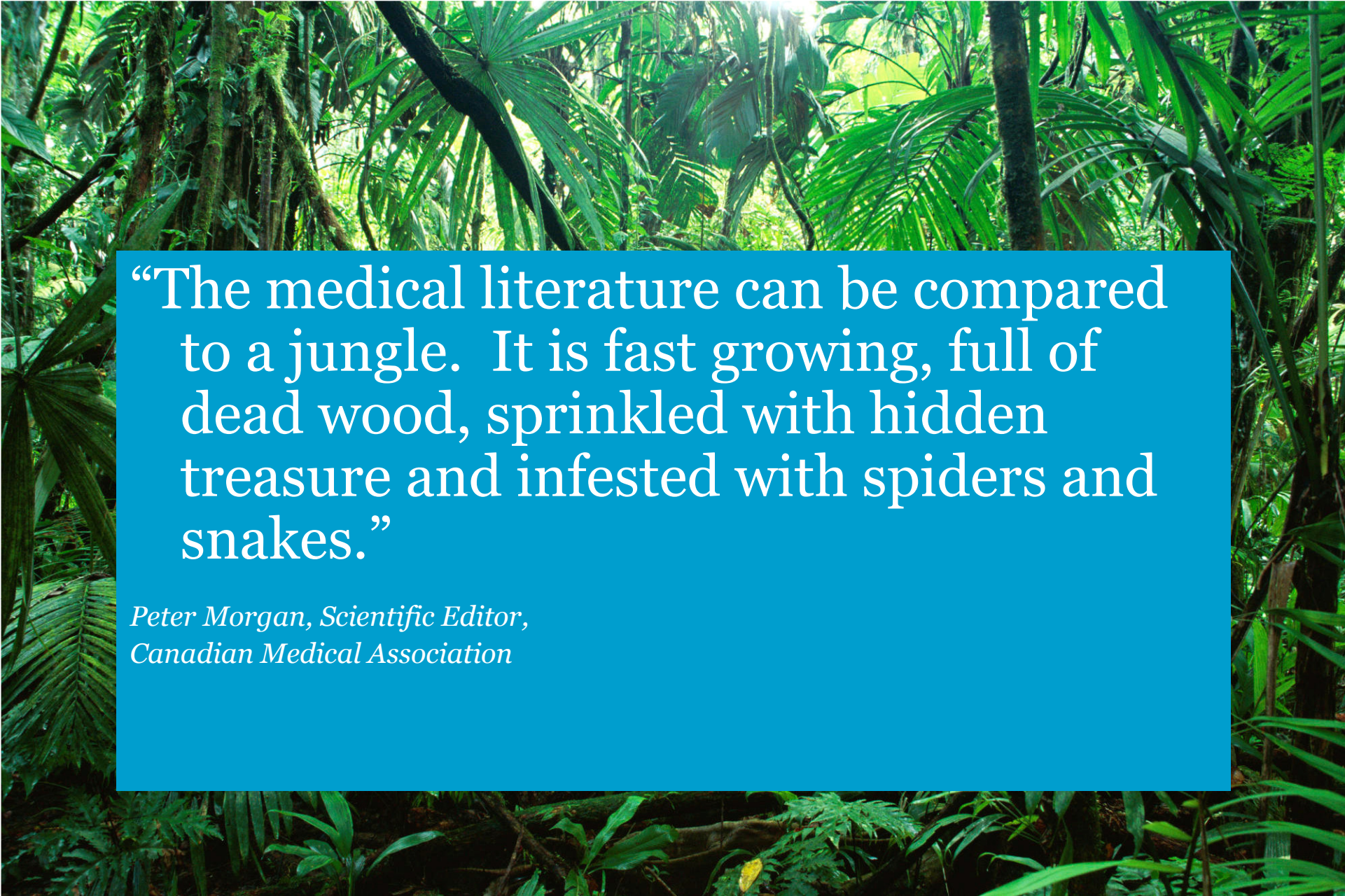
Plan

1300	Forelesning
1400	Øvelse + pause
1515	Gjennomgang
1600	Takk for i dag





”Kunnskapssenteret fremskaffer og formidler forskningsbasert kunnskap om effekt av metoder, virkemidler og tiltak og om kvalitet innen alle deler av helsetjenesten”.



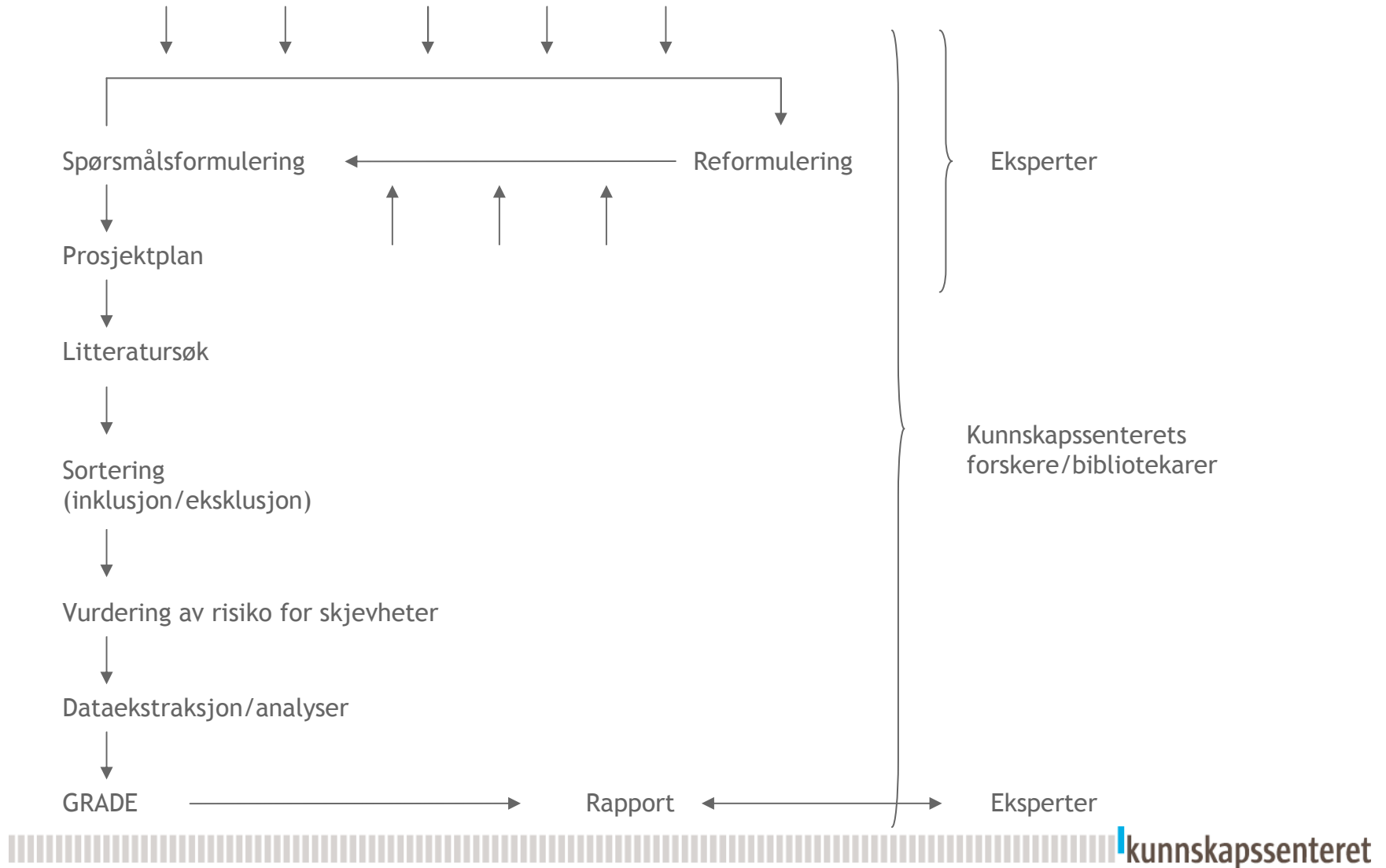
“The medical literature can be compared to a jungle. It is fast growing, full of dead wood, sprinkled with hidden treasure and infested with spiders and snakes.”

*Peter Morgan, Scientific Editor,
Canadian Medical Association*

Systematisk oversikt

- En oversikt der forfatterne har brukt en systematisk og tydelig framgangsmåte for å finne, vurdere og oppsummere alle undersøkelser om samme spørsmål. Et felles effektestimat kan ofte beregnes gjennom en meta-analyse.

Trinn i systematiske oversikter



Spørsmålsformulering

1. Hva er problemstillingen?
2. Har noen gjort det før oss?
3. Hva slags kunnskap ønsker vi utover den som foreligger?

Komponenter i en klart formulert problemstilling: PICO



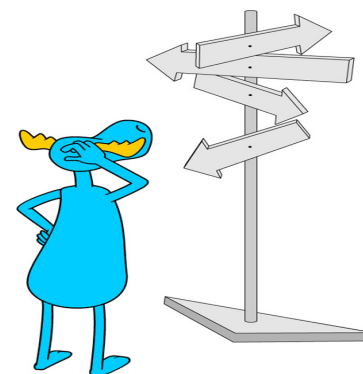
P Hvordan kan man beskrive **pasientgruppen**?

I Hvilken type **intervensjons** skal vurderes?

C Hva er den viktigste alternative intervensjonen/instrumentet (**comparator**)?

O Hvilke utfall (**outcomes**) er viktige?

Forskningsspørsmål og studiedesign



Hvor mange har en spesiell plage?

Utbredelse/forekomst

Tverrsnittstudier

Hvorfor får noen...?

Etiologi (årsaksforhold)

*Kasus-kontroll/
kohortstudier*

Hvordan kan vi avgjøre om noen har...?

Måleinstrumenter, tester og diagnostikk

Studier av diagnostisk nøyaktighet

Hva kan vi gjøre?

Effekt av forebygging, behandling

Randomisert kontrollert forsøk

Hvordan går det?

Prognose

Kohortstudier

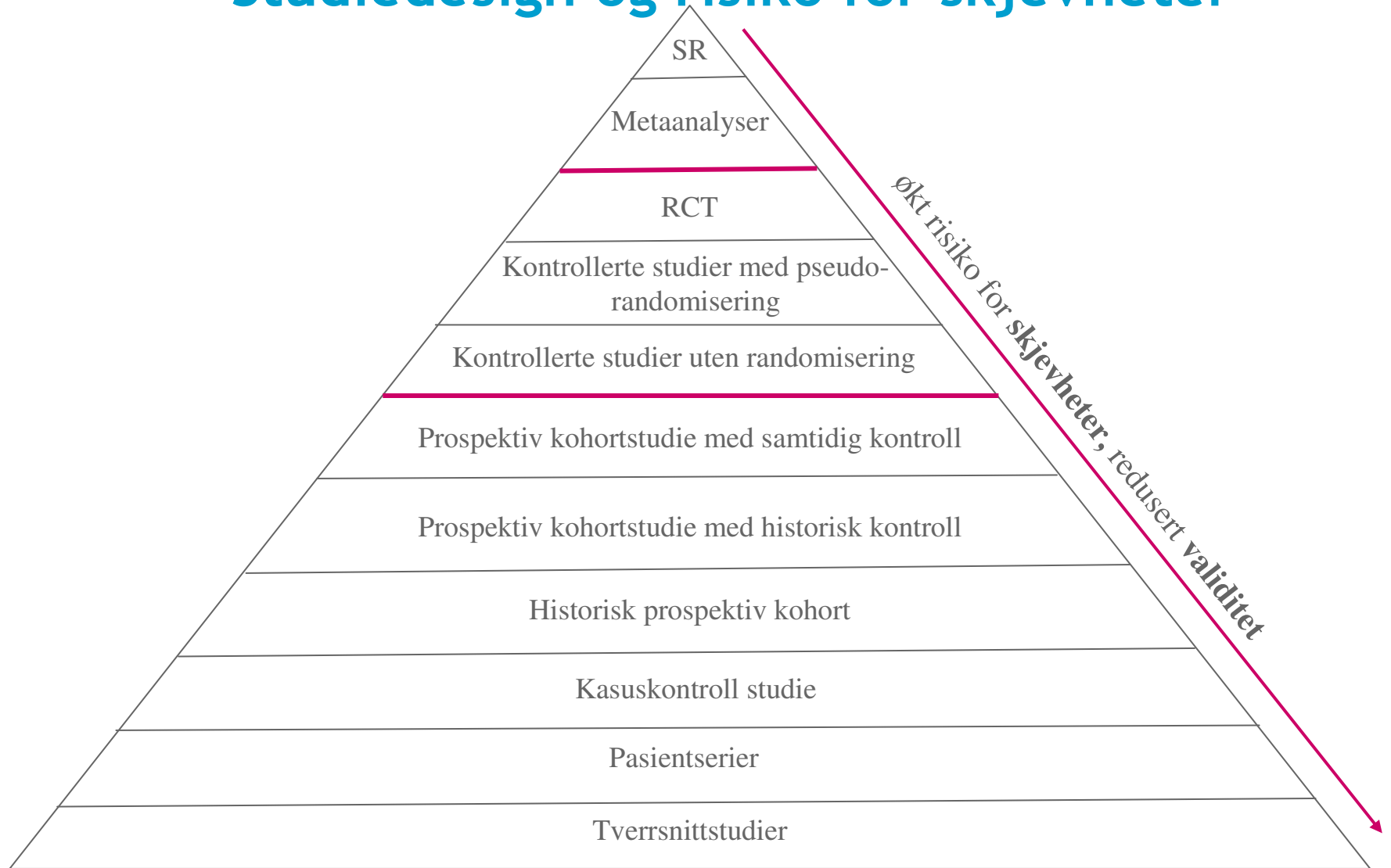
Hvordan oppleves det?

Erfaringer, opplevelser og holdninger

Kvalitative studier



Studiedesign og risiko for skjevheter



Har noen gjort det før oss?



NHS
National Institute for
Health and Clinical Excellence

ClinicalEvidence





- Grunnlagt 1993, oppkalt etter epidemiolog Archie Cochrane
- Internasjonal not-for-profit organisasjon
- Styringsgruppe, subgrupper og sekretariat
- Enheter: sentre, review groups, methods groups, fields/networks
- Utgiver av bl a the Cochrane database of Systematic Reviews

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Cochrane in the News



The BBC News discusses new Cochrane evidence on acupuncture for headaches.

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[Intervention] for [health problem]

Text of Review

- Intervention review
 - Title
 - Protocol information
 - Main text
 - Abstract
 - Plain language summary
 - Background
 - Objectives
 - Methods
 - Results
 - Discussion
 - Authors' conclusions
 - Acknowledgements
 - Contributions of authors
 - Declarations of interest
 - Differences between protocol and review
 - Published notes
 - Tables
 - Studies and references
 - Data and analyses
 - Figures
 - Sources of support
 - Feedback
 - Appendices

[Intervention] for [health problem]

Protocol information

Authors

[Empty name]¹

¹[Empty affiliation]

Citation example: [Empty name]. [Intervention] for [health problem] [Protocol]. Cochrane Database of Systematic Reviews [Year], Issue [Issue].

Add Author

Contact person

[Empty name]

Dates

Assessed as Up-to-date:

Date of Search:

Next Stage Expected:

Protocol First Published: Not specified

Review First Published: Not specified



The Cochrane Library

Evidence for healthcare decision-making

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As a clinician you are under constant pressure to have high-quality, up-to-date evidence at your fingertips. [More](#)

For Researchers

The internet has given us instant access to a huge amount of research, but the large volume of available information is a problem in itself. [More](#)

For Patients

Healthcare consumers and patients need high-quality evidence about the effectiveness of treatments. [More](#)

For Policy Makers

As a policy maker or healthcare manager you are a generalist in search of high-quality information across a broad range of issues. [More](#)

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[Highlights of new and updated Reviews \(PDF\)](#)

[Cochrane Reviews of Diagnostic Test Accuracy](#)

[Street lighting for preventing road traffic injuries](#)

[Acupuncture for tension-type headache](#)

[Acupuncture for migraine prophylaxis](#)

[Kinship care for the safety, permanency, and well-being of children removed from the home for maltreatment](#)

[Interventions for preventing weight gain after smoking cessation](#)

[Publication bias in clinical trials due to statistical significance or direction of trial results](#)

[Interventions for treating obesity in children](#)

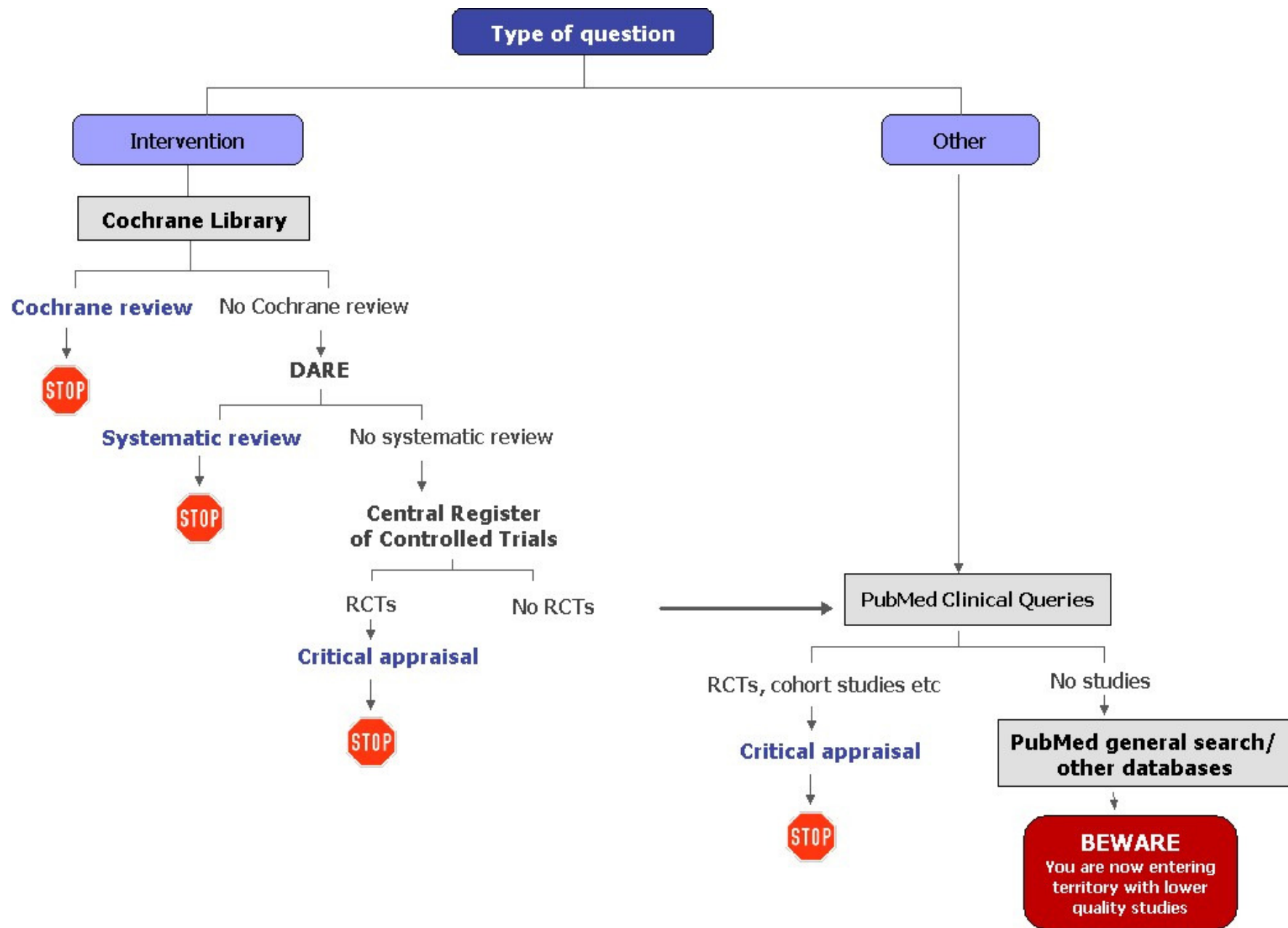
[School-based physical activity programs for promoting physical activity and fitness in](#)

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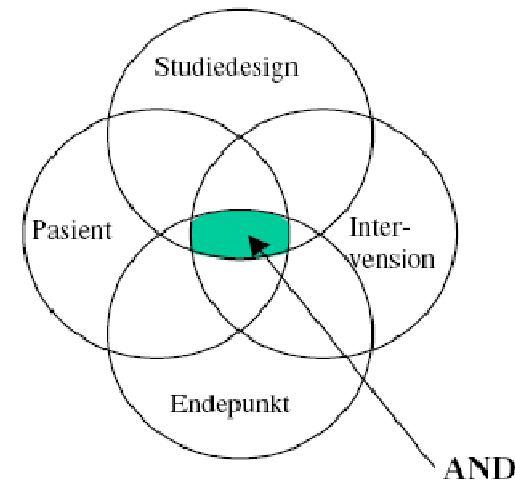
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Litteratursøk

- en spesialistoppgave



Draft MEDLINE search strategy

- 1 methadone.mp.
- 2 buprenorphine.mp.
- 3 or/1-2
- 4 Exp Opioid-Related Disorders/
- 5 Substance Withdrawal Syndrome/
- 6 Substance related disorders/
- 7 Heroin dependence/
- 8 (substance abuse OR substance misuse OR substance dependen\$).mp.
- 9 (opioid abuse OR opioid misuse OR opioid dependen\$).mp.
- 10 (heroin abuse OR heroin misuse OR heroin dependen\$).mp.
- 11 (opiate abuse OR opiate misuse OR opioid dependen\$).mp.
- 12 or/4-11
- 13 3 and 12

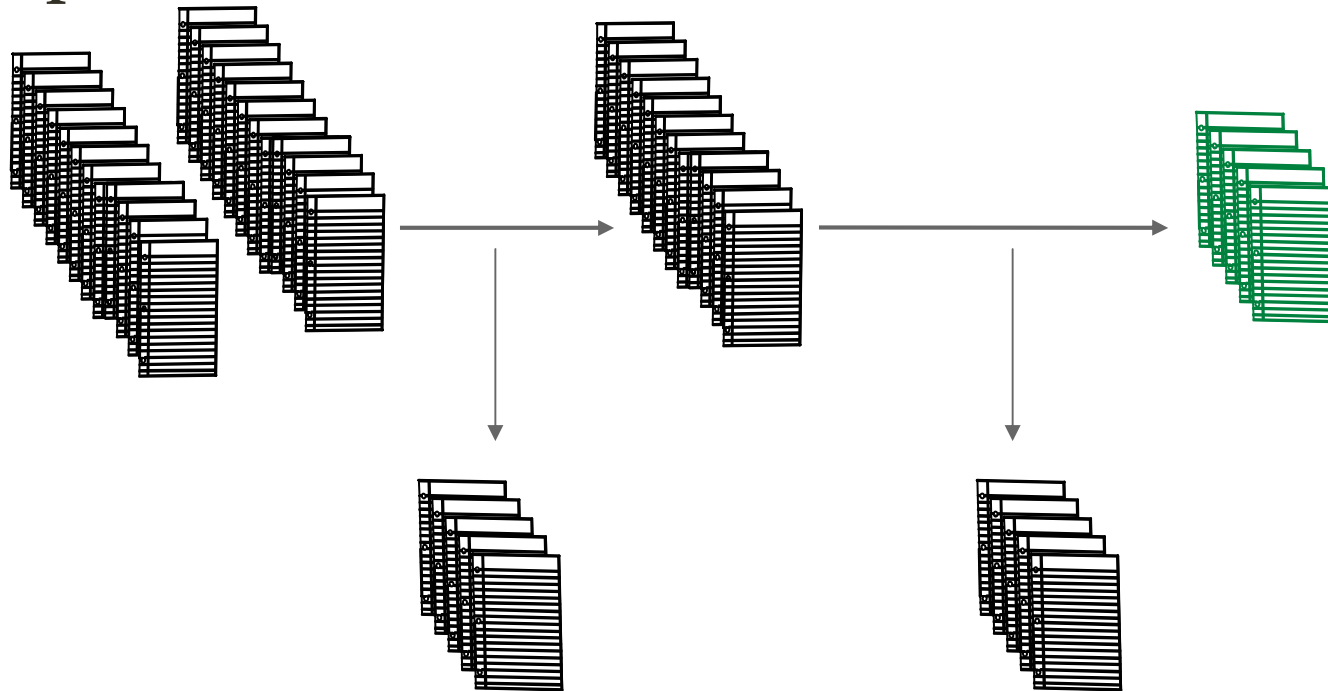
Publikasjonsskjevhet

- databaser
- tidsrom
- “grey literature”
- referanselister
- ressurspersoner



Sortering (inkludasjon/eksklusjon)

- Oppfyller studien alle inkludjonskriteriene?
- Oppfyller studien noen av eksklusjonskriteriene?
- Leseapar



Sjekkliste for vurdering av risiko for systematiske feil i RCTer

- **Generering av fordelingssekvens?**
- **Skjult allokering?**
- **Blinding av deltagere, personell og de som målte utfallene?**
- **Ufullstendig oppfølging av utfallsdata?**
- **Selektiv rapportering?**
- **Andre typer systematiske feil?**

Dataekstraksjon

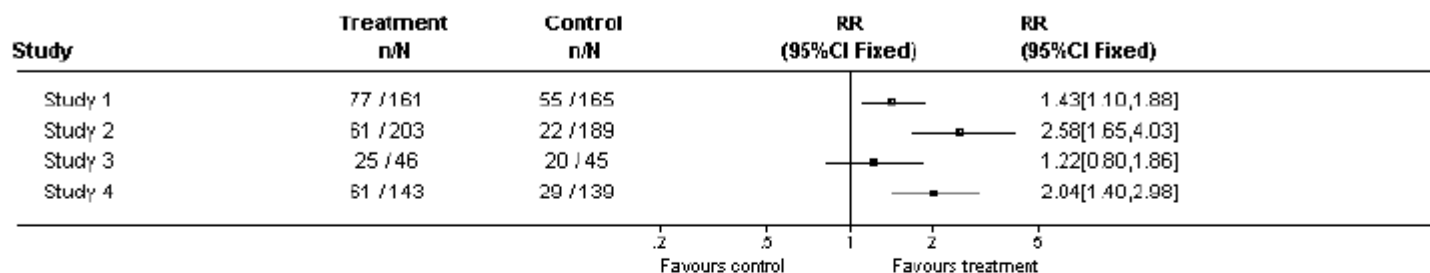
Baseline characteristics			[control]	[study drug]
	Number randomised			
	Number analysed			
	Age (wks, mos, yrs) (mean, SD; median, range)			
	Male:female n : n			
	Duration of dependence (wks, mos, yrs) (mean, SD; median, range)			
	Age at diagnosis (wks, mos, yrs) (mean, SD; median, range)			
	Newly treated with study intervention, n (%)			
	Previously treated with study intervention, n (%)			
	Frequency of opioid use (/dy, wk, mo) (mean, SD; median, range)			
	N ^o : (1,2,3 etc) concomitant drugs, n (%)			
	Concomitant non-drug treatments, n (%)			
	Previous treatments, n (%) (please specify)			
	Alcohol, n (%) / additional illicit drug use, n (%)			
	HIV positive n (%) / Hepatitis positive n (%)			



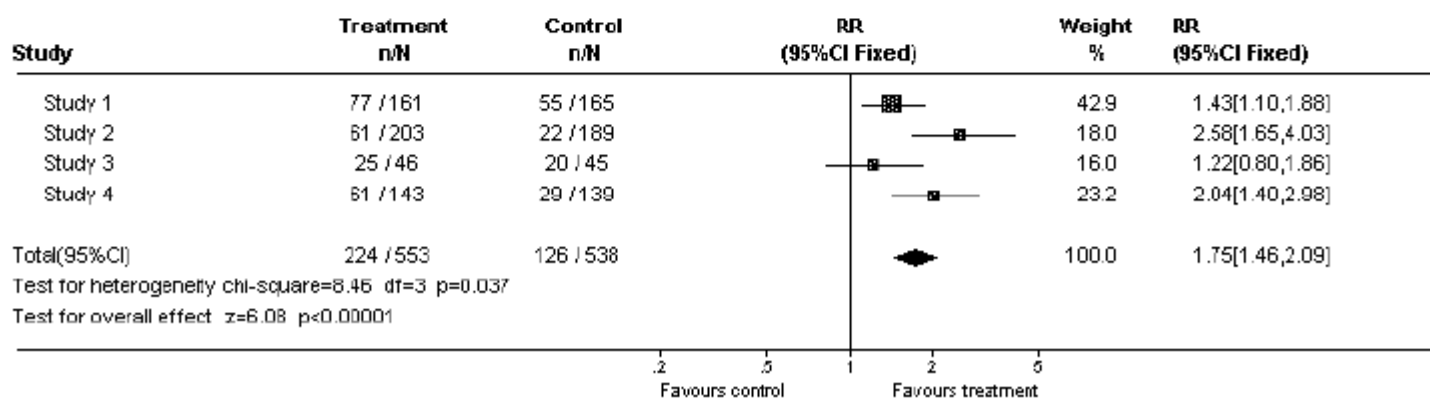
Sammenstilling av data

- Syntese
 - n
 - PICO
 - Risiko for systematiske feil
 - Hovedfunn
- Metaanalyse
 - Relativ risiko, odds ratio, gjennomsnittsdifferanse
 - Forrest plot
 - Heterogenitet
 - Metaregresjon

a) Presented without meta-analysis



b) Presented with meta-analysis (fixed effect model)



Type utfall

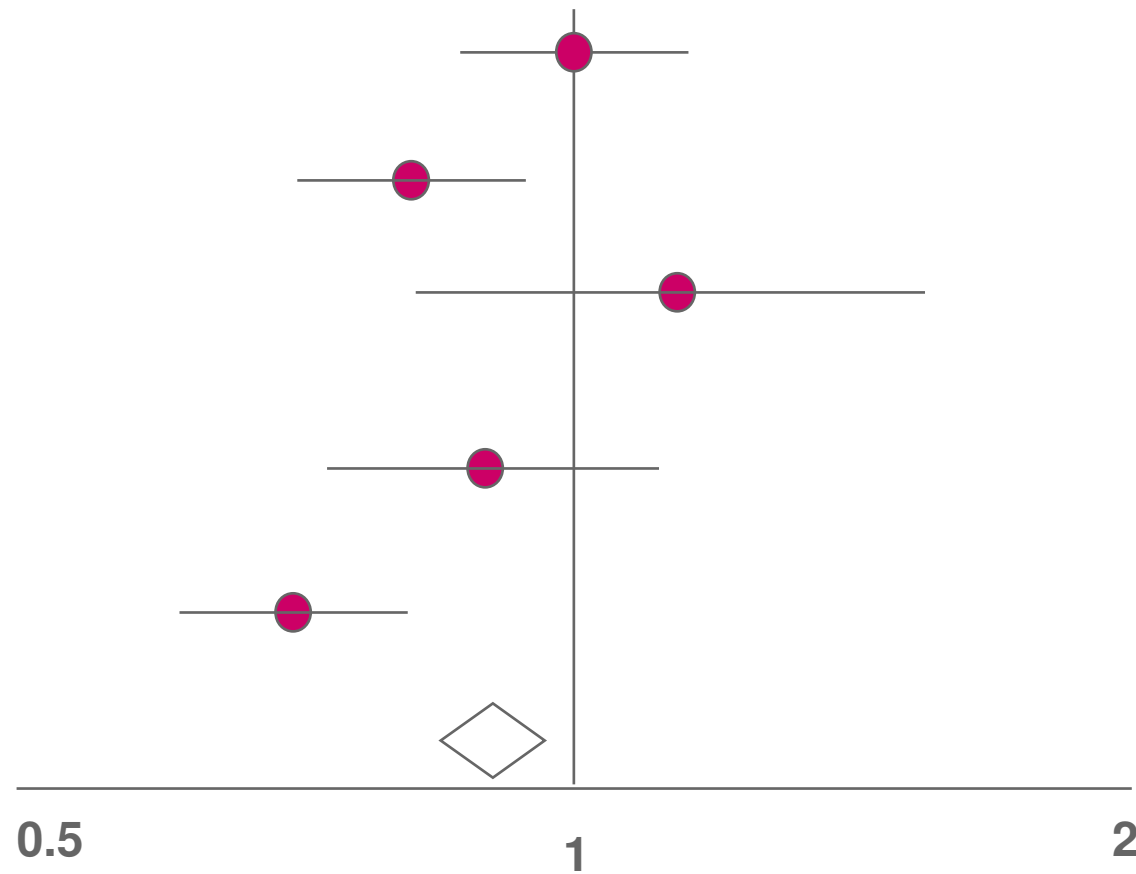
- Dikotome
 - relativ risiko (RR), odds ratio (OR)
- Kontinuerlige
 - standardisert gjennomsnittsdifferanse (SMD), vektet gjennomsnittsdifferanse (WMD)

Dikotome utfall

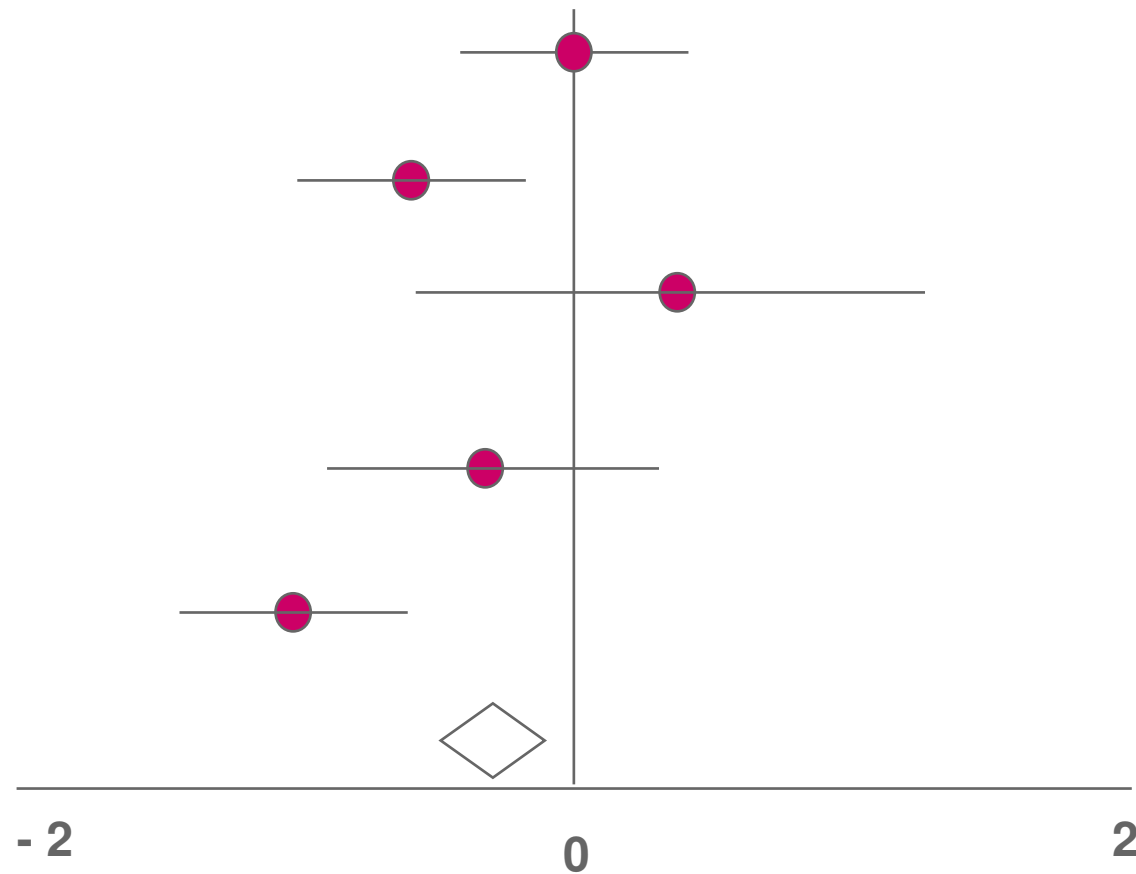
	Syk	Frisk	
Behandling	a	b	a+b
Kontroll	c	d	c+d
	a+c	b+d	n

$$RR(\text{syk}) = [a/a+b] / [c/c+d]$$

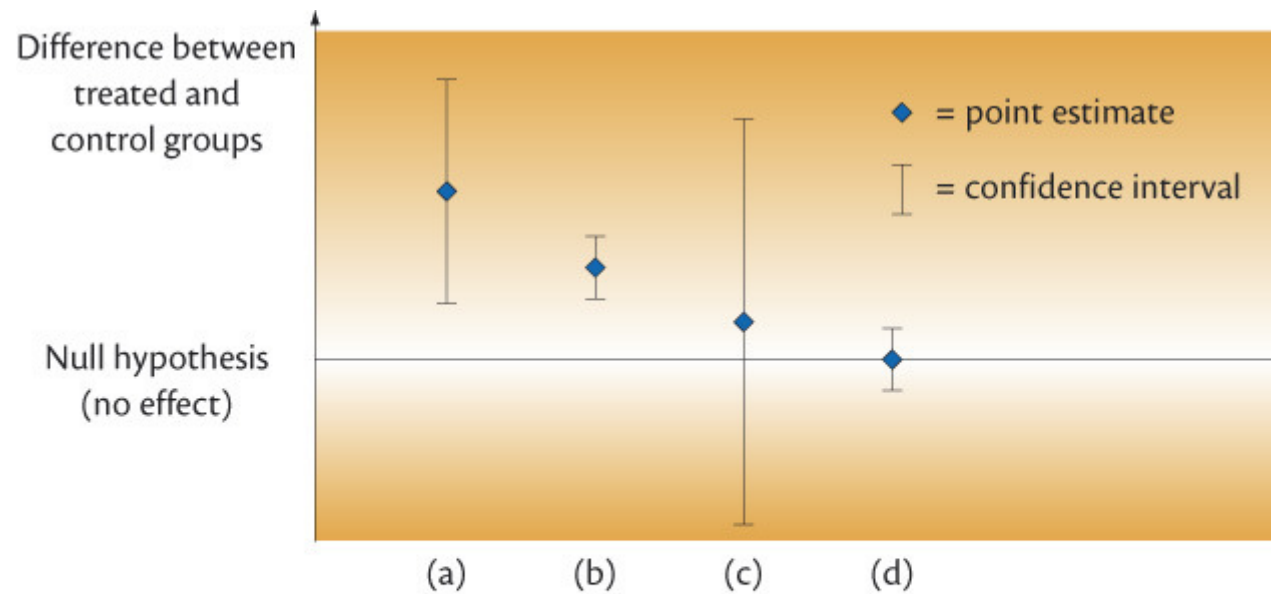
Meta-analyse: relativ risiko (RR)



Meta-analyse: standardisert gjennomsnittsdifferanse (SMD)



Reading confidence intervals



- (a) Statistically significant result ($P < 0.05$) but low precision
- (b) Statistically significant result ($P < 0.05$) with high precision
- (c) Not statistically significant result ($P > 0.05$) with low precision
- (d) Not statistically significant result (no effect) with high precision

Homogenitet

- For studier
 - sammenliknbare utvalg, intervensjoner og utfall
- For resultater
 - sammenliknbare effektmål
- Test for heterogenitet
 - χ^2/I^2 (lav p-verdi betyr heterogene resultater)

Øvelse: kritisk vurdering av systematisk oversikt

Journal of Experimental & Clinical Cancer Research



Research

Open Access

Traditional Chinese medicines in the treatment of hepatocellular cancers: a systematic review and meta-analysis

Ping Wu¹, Jean Jacques Dugoua², Oghenowede Eyawo³ and Edward J Mills*^{3,4}

Kritisk vurdering - oversikt

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 e-mail: emills@sfu.ca; Jean Jacques Dugoua - drjj@askdrj.com; Oghenowede Eyawo - oea1@sfu.ca; Edward J Mills - emills@sfu.ca

INNLEDENDE SPØRSMÅL

1. Er formålet med oversikten klart formulert?	Ja <input type="radio"/>	Uklart <input type="radio"/>	Nei <input type="radio"/>
TIPS:			
<ul style="list-style-type: none"> Er det et tydelig og relevant spørsmål? Kva er hovedsammenhengene? 			

KAN VI STOLE PÅ RESULTATENE

2. Er det klare kriterier for inklusjon av enkeltstudiene?	Ja <input type="radio"/>	Uklart <input type="radio"/>	Nei <input type="radio"/>
TIPS:			
<ul style="list-style-type: none"> Se etter populasjon, tiltak, kontroll og utfallsmål. Vurder om de har inkludert relevante studiedesign 			
3. Er det sannsynlig at relevante studier er funnet?	Ja <input type="radio"/>	Uklart <input type="radio"/>	Nei <input type="radio"/>

Received: 6 July 2009
 Accepted: 12 August 2009

J. Exp. Clin. Oncol. 2009, 28:112 doi:10.1186/1756-9966-28-112
<http://www.jeccr.com/content/28/1/112>

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Background: Liver cancer is a common malignancy with a high mortality rate. Given the poor prognosis associated with this cancer, many patients seek additional therapies that may improve life or survival. Several Traditional Chinese Medicines (TCM) have been evaluated in clinical trials, but little is known about them outside of China.

Methods: We searched independently and in duplicate 8 electronic databases, including 2 Chinese databases, until February 2009. We included any randomized clinical trials (RCT) of a TCM oral preparation for the treatment of hepatocellular cancers. We abstracted data on patient characteristics, tumor response, and performance scores. We conducted a random-effects meta-analysis and applied a meta-regression analysis.

Results: We included 45 RCTs (n = 3,236). All studies employed an active control group. In general, the reporting of methodological issues was poor. We analyzed data from 37 trials

