

# NIHR CRSU

## COMPLEX REVIEWS SUPPORT UNIT



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# Webinar

## Living Systematic Reviews: Opportunities and Challenges

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# Updating Issues of Living Systematic Reviews

Alex Sutton, University of Leicester

- Many practical considerations:
- Efficiency of reviewing
  - Automation of searchers / data extraction / analysis / conclusion writing
  - Utilisation of tools short of full automation
  - Clark J, Glasziou P et al. A full systematic review was completed in 2 weeks using automation tools: a case study. *Journal of Clinical Epidemiology*, 121(2020):81-90,
- Digital publishing
  - In its infancy, tools continuously improving
  - Opportunity to do things not possible in static paper reviews
    - E.g. Incorporate user interactivity.
  - Infrastructure built around updating of LSRs required

# When to Update a Living Systematic Review?

- After every new trial?
- After every new “important” trial?
- Fixed time period?
- Need to demonstrate value-for-money?

# When to Stop Updating a Living Systematic Review?

- Never?
- When the SR question “answered”?
- Should living systematic review questions evolve over time or be of an open nature?
  - E.g. What is the best treatment(s) for mild depression
  - E.g. Use network meta-analysis to combine all treatments for important conditions going forward

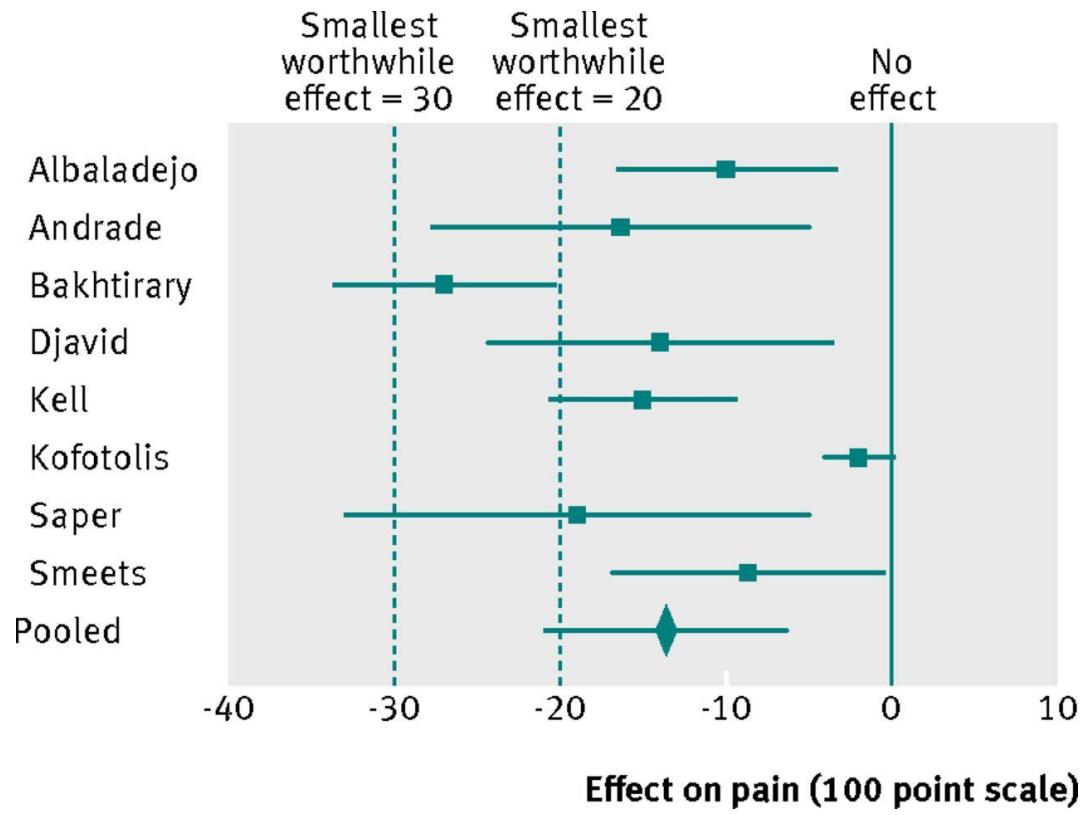
# How to Ensure Longevity of a Living Systematic Review?

- Funding beyond initial start-up period?
- Ensuring future-proof to changes in staffing
- Make whole website / resources open access?
  - Ensure others could take over (as well as adding transparency)
- Authorship rewards for academics?
  - Some experience via updates of static reviews in Cochrane and beyond

# How Should Ongoing Studies Be Included?

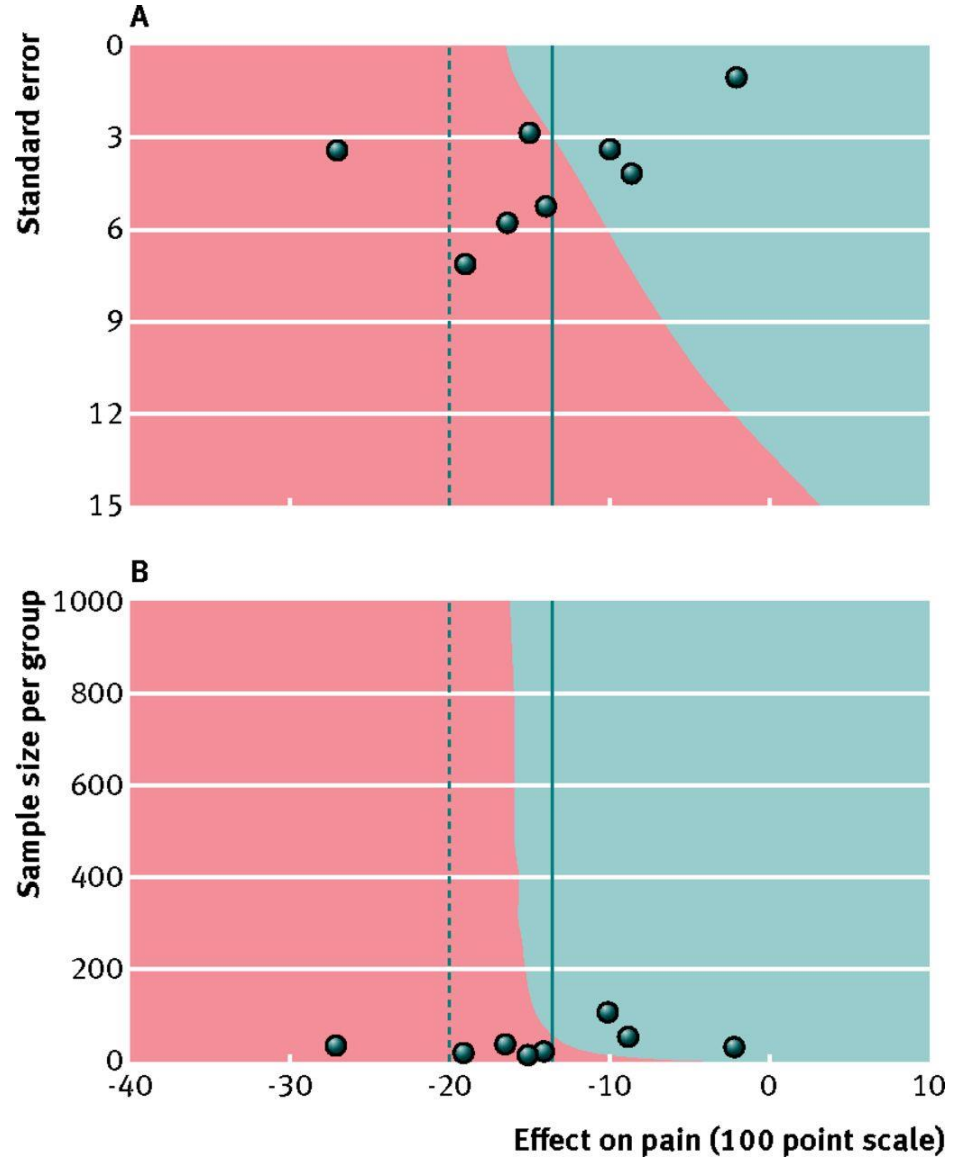
- Ongoing studies rule, not the exception
- Should their potential impact be considered for
  - A) Findings of the existing LSR?  
e.g. Is it likely that the findings of the known, ongoing studies will impact on the existing review conclusion?
  - B) Recommendations for future research?  
e.g. How should these take into account ongoing research?

# Plot Showing Impact of New Study on Meta-Analysis



Forest plot showing estimates of effect of exercise on chronic low back pain.

Ferreira ML, Herbert RD, Crowther MJ, Verhagen A, Sutton AJ. When is a further clinical trial justified? *BMJ* 2012; 345 :e5913



New Study: Blue = Effect not worthwhile in m-a  
 Red = Unclear if worthwhile  
 \* No area for new study showing definitively worthwhile

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