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Living systematic reviews

Special Session at Global Evidence Summit:
From living systematic reviews to living recommendations
13 September 2017

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Trusted evidence.
Informed decisions.
Better health.

Disclosure & acknowledgements

- I have no actual or potential conflict of interest in relation to this presentation.

What is a living systematic review?

We define an LSR as a systematic review that is continually updated, incorporating relevant new evidence as it becomes available. In practice, this means continual surveillance for new research evidence through ongoing or frequent searches and the inclusion of relevant new information into the review in a timely manner so that the findings of the systematic review remain current.

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Cochrane's first LSR pilots

Cochrane Library
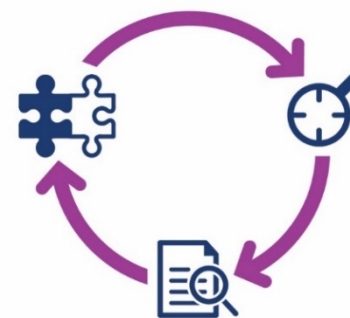**Cochrane** Database of Systematic Reviews

Parenteral anticoagulation in ambulatory patients with cancer (Review)

Akl EA, Kahale LA, Hakoum MB, Matar CF, Sperati F, Barba M, Yosuico VED, Terrenato I, Synnot A, Schünemann H
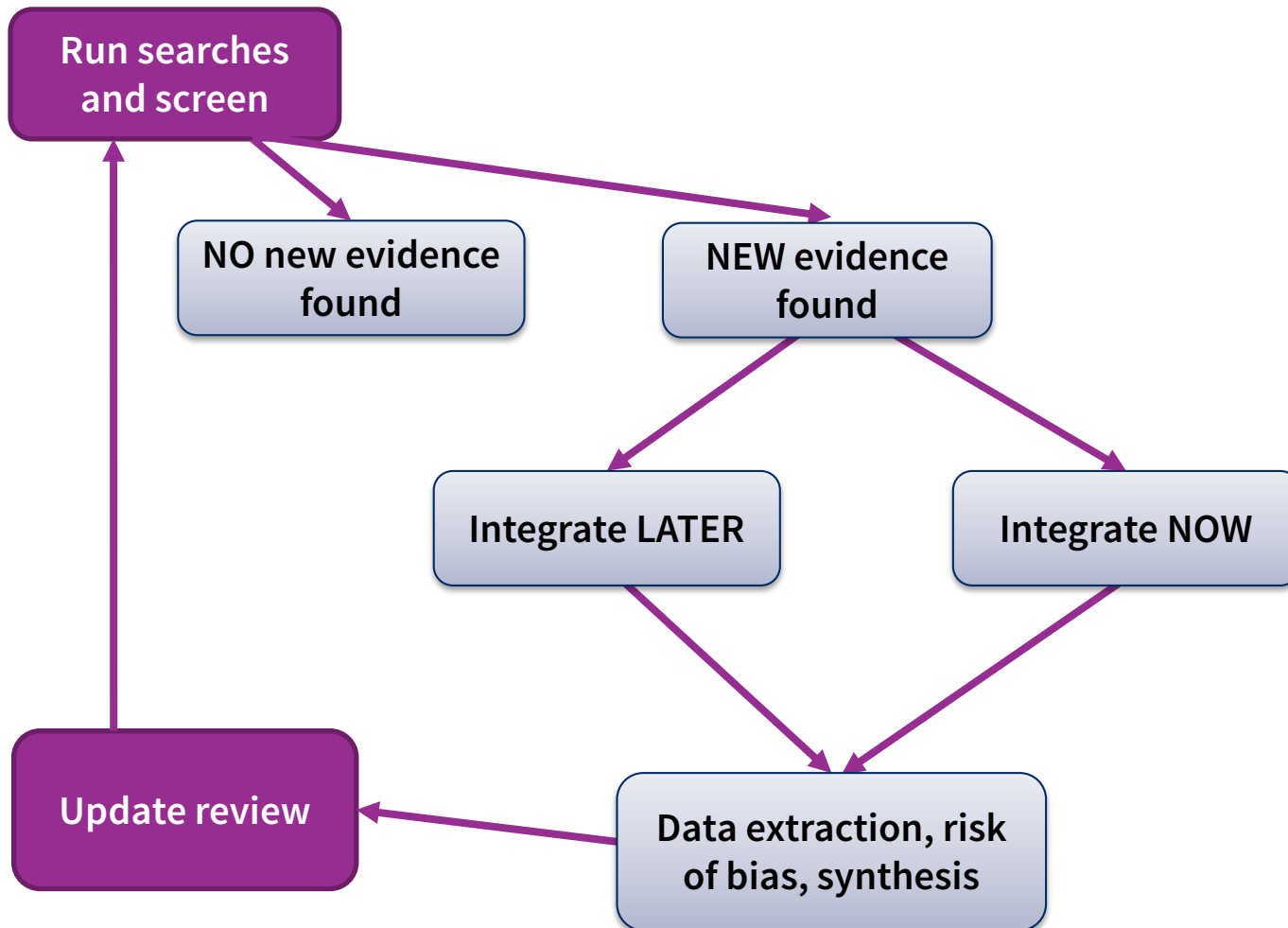
Editorial note: This is a living systematic review. Living systematic reviews offer a new approach to review updating in which the review is continually updated, incorporating relevant new evidence, as it becomes available. Please refer to the Cochrane Database of Systematic Reviews for the current status of this review.

Features of Cochrane LSR approach

- Applies to any review type (e.g. RCTs, qualitative)

- Retains core systematic review methods

- LSR-specific methods pre-specified in protocol

- Explicit and a priori commitment to frequent search and updating

- Starts with a standard 'baseline' review

- Searches = monthly

- Tell reader 'what's happening' = monthly

- Re-publish the review = informed by the evidence

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Basic LSR process

Run searches and screen

NO new evidence found

NEW evidence found

Integrate LATER

Integrate NOW

Update review

Data extraction, risk of bias, synthesis

LSR specific-methods

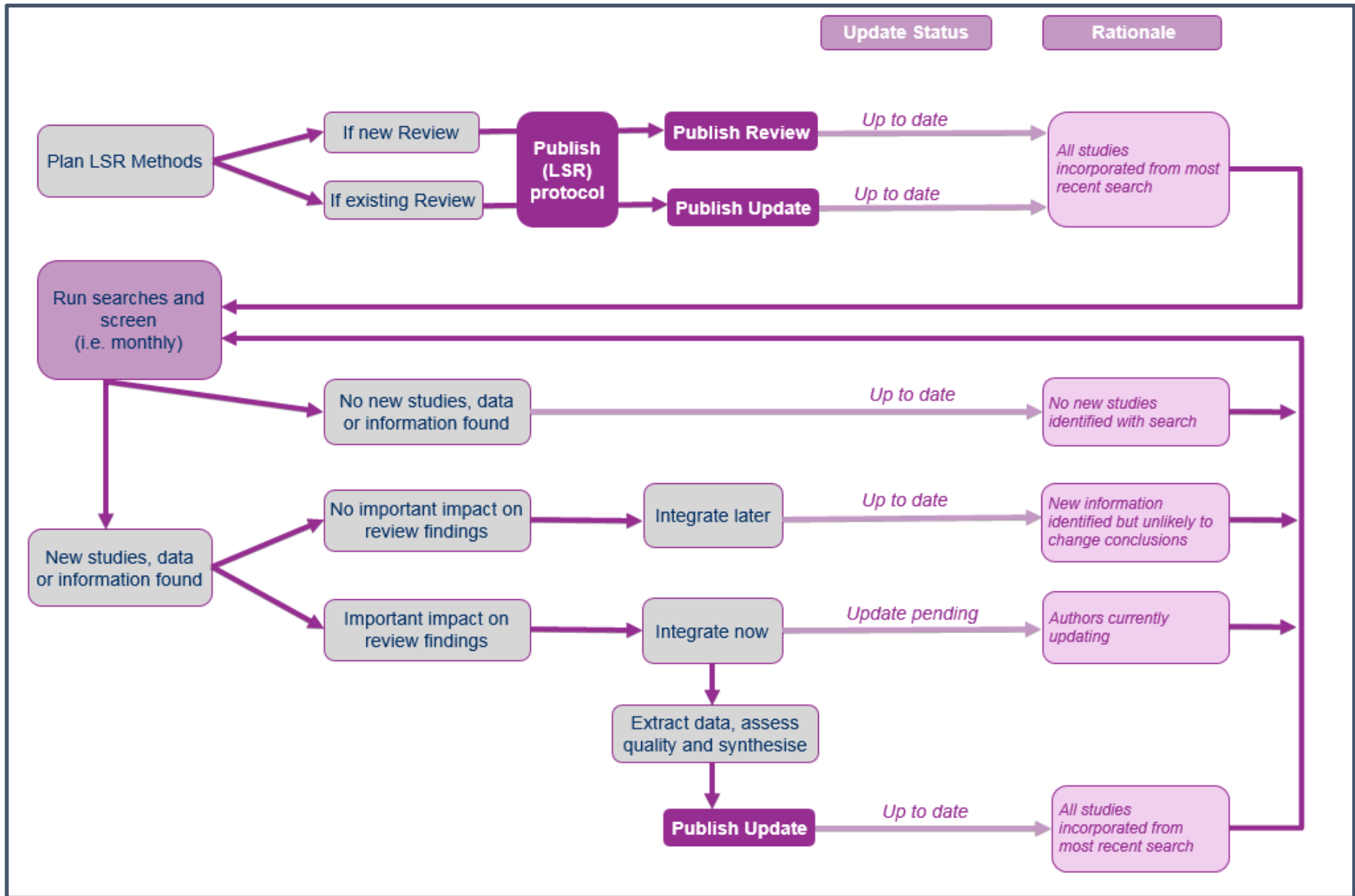- Searching
  - Specify frequency of all sources (databases, trial registers and other sources)

- Screening
  - Should match search frequency, may use 'enablers' (machine, Crowd)

- Data synthesis
  - Incorporate new evidence immediately OR use decision rules to decide if can be delayed
  - *May* need to adjust meta-analysis for Type I error

- Other
  - Methods and searches reviewed over time

Update Status	Rationale

Plan LSR Methods

If new Review → **Publish (LSR) protocol** → **Publish Review** — *Up to date* → *All studies incorporated from most recent search*

If existing Review → **Publish Update** — *Up to date* → *All studies incorporated from most recent search*

Run searches and screen (i.e. monthly)

No new studies, data or information found — *Up to date* → *No new studies identified with search*

New studies, data or information found

No important impact on review findings → Integrate later — *Up to date* → *New information identified but unlikely to change conclusions*

Important impact on review findings → Integrate now — *Update pending* → *Authors currently updating*

Extract data, assess quality and synthesise → **Publish Update** — *Up to date* → *All studies incorporated from most recent search*

Cochrane's LSR pilots

Review title	Authors	CRG	Publicat'n
Parenteral anticoagulation in ambulatory patients with cancer	Elie Akl, Lara Kahale (Lebanon)	GNOC	Sept 2017
Delayed antibiotics in respiratory infections	Geoffrey Spurling (Australia)	ARI	Sept 2017
Interventions to increase fruit and vegetable consumption in children under 5 years	Rebecca Hodder, Luke Wolfenden (Australia)	Heart	Sept-Oct 2017
Conservative treatments for osteoarthritis (2 x reviews)	Rachelle Buchbinder, Renea Johnston (Australia)	Musc.	2018

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Questions / comments?