

Innovate: Cochrane future ecosystem for evidence synthesis

Chris Mavergames

Head of Informatics & Knowledge Management
Cochrane Central Executive

Trusted evidence.
Informed decisions.
Better health.



Cochrane

UK & Ireland Symposium 2016



Acknowledgements

Many thanks to Jo Anthony, Lorne Becker, Gordon Dooley, Julian Elliott, Ruth Foxlee, Ida Wedel-Heinen, Iain Marshall, Rasmus Moustgaard, Anna Noel-Storr, Charlotte Pestrige, Jacob Riis, Ida Sim, James Thomas, Tari Turner, Julie Wood, and probably others for their input into these slides

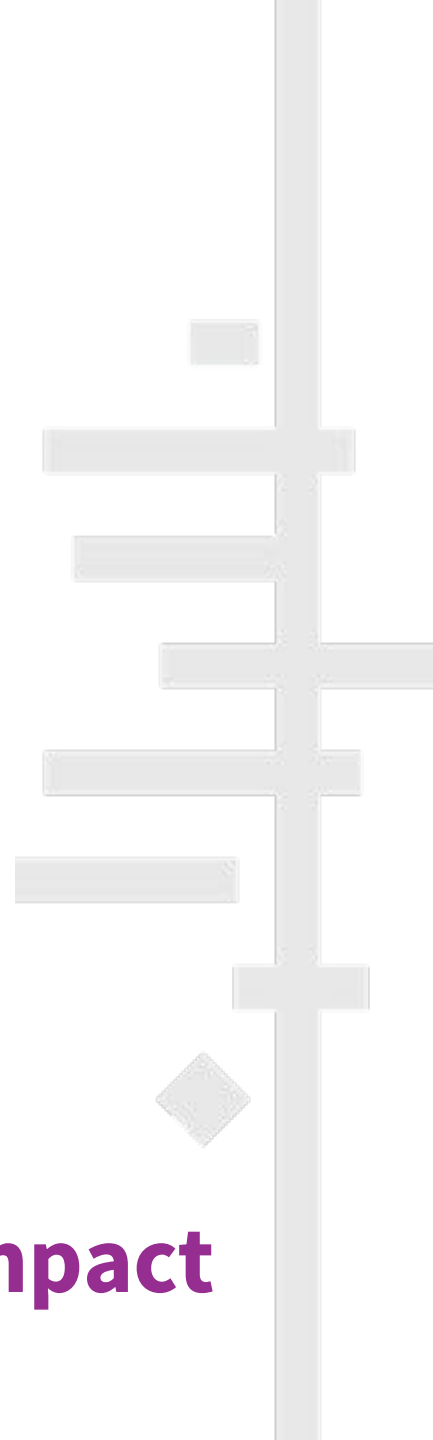


This talk is about

How ...

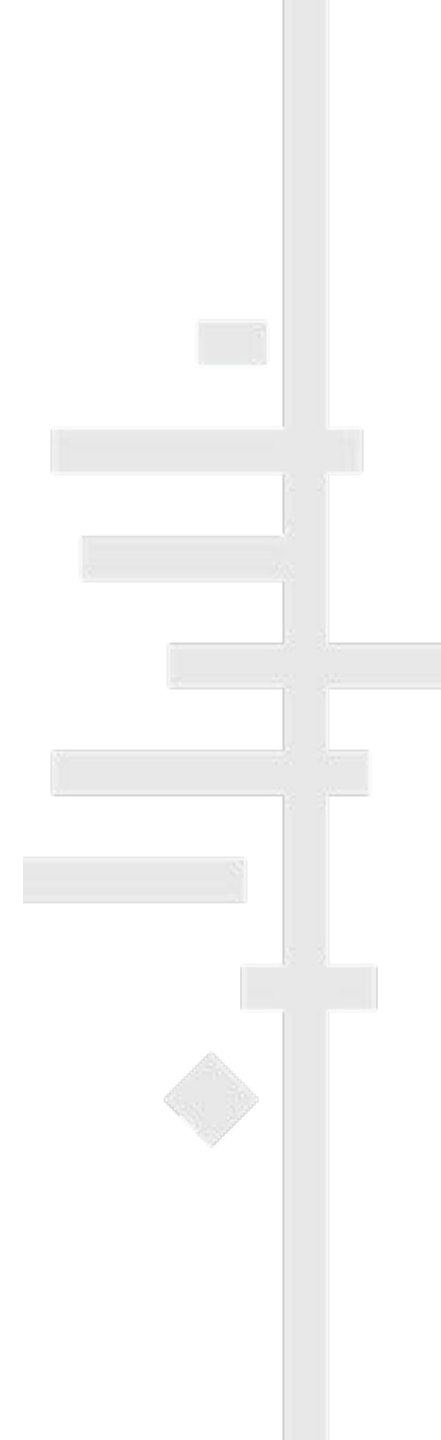
- finding evidence
 - synthesising evidence
 - disseminating evidence
- ... are changing?

What it means for you and our impact



Outline

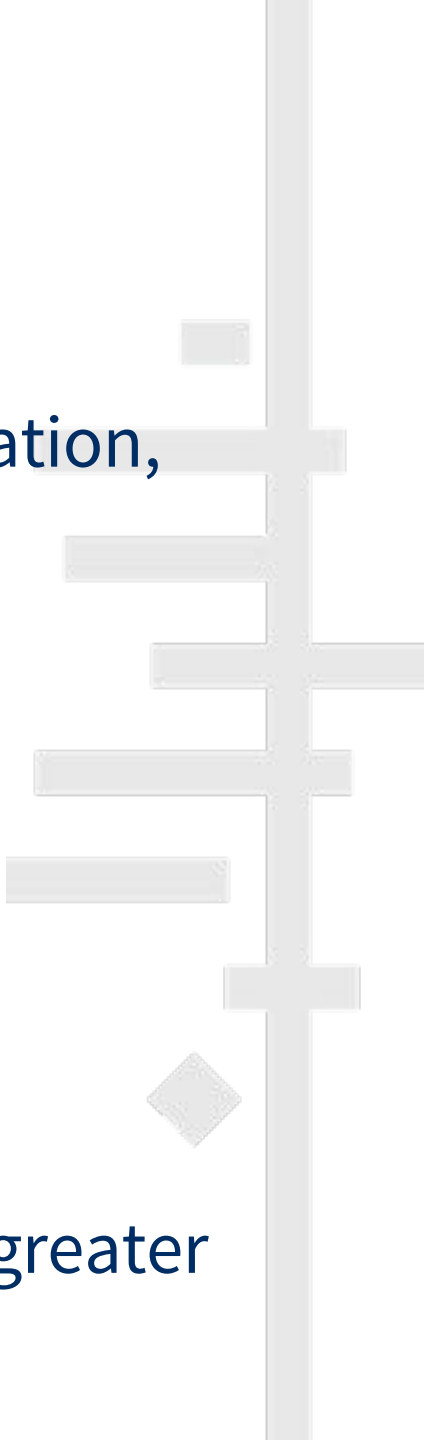
- Emerging new ecosystem
- Project Transform
- Linked data
- New authoring infrastructure
- The wider context
- Summary



Background

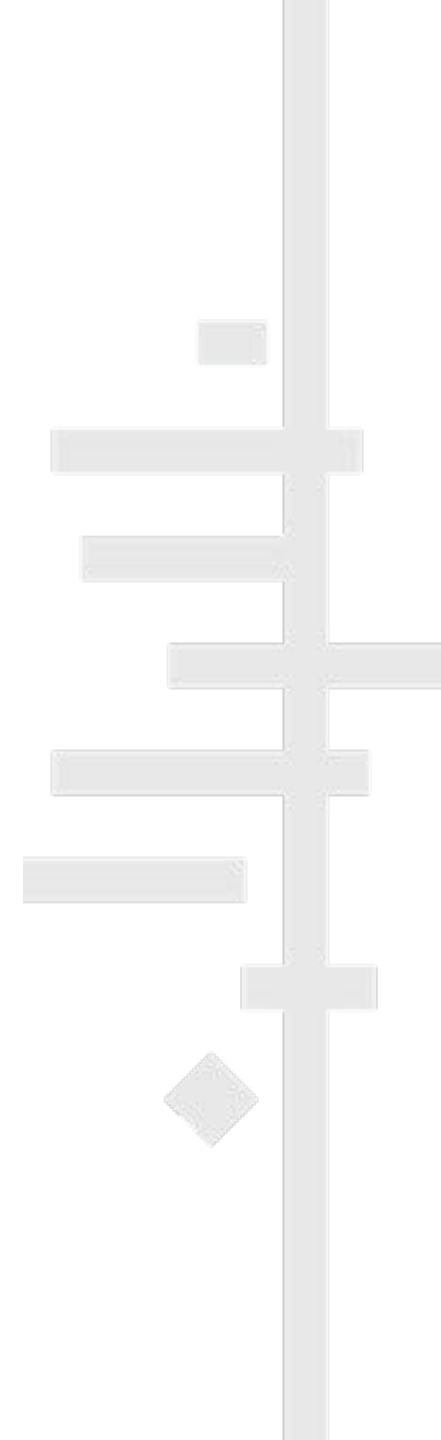
- Current evidence processes very manual
- Machines and machine/human not optimally utilised
- Organising human effort not optimised
- Tools not yet fit for purpose and connected
- Data not "smart"
- Outputs not optimised for use and impact
- Solving "today's problems"
- Preparing for tomorrow's challenges

Direction of travel

- Less manual work, more focus on data curation, synthesis, and “reflection”
 - Structured, “PICO-fied”/computable data
 - Audit trails, provenance, re-useable data
 - Machine/crowd assistance
 - New models of participation
 - Tools fit for purpose and integrated
 - We produce more evidence; Outputs have greater impact
- 

The emerging "ecosystem"

People + Process + Technology
optimized for the task



Future Evidence Ecosystem for Cochrane Review Production

BUSINESS PROCESS LAYER

Identifying studies

Working with studies

Managing data

Analysing data

Writing up

Publishing



APPLICATION LAYER



Centralized search

Evidence pipeline

CRS Web

Covidence/
EPPI-R

RevMan
Web

GRADEPro/
GDT

Archie



DATA LAYER

APIs

Annotation API

Study API

Review API

Archie API



DATA REPOSITORIES

Linked Data (PICO)

Study Data

Reviews Data

'Archie' Data

plan

search

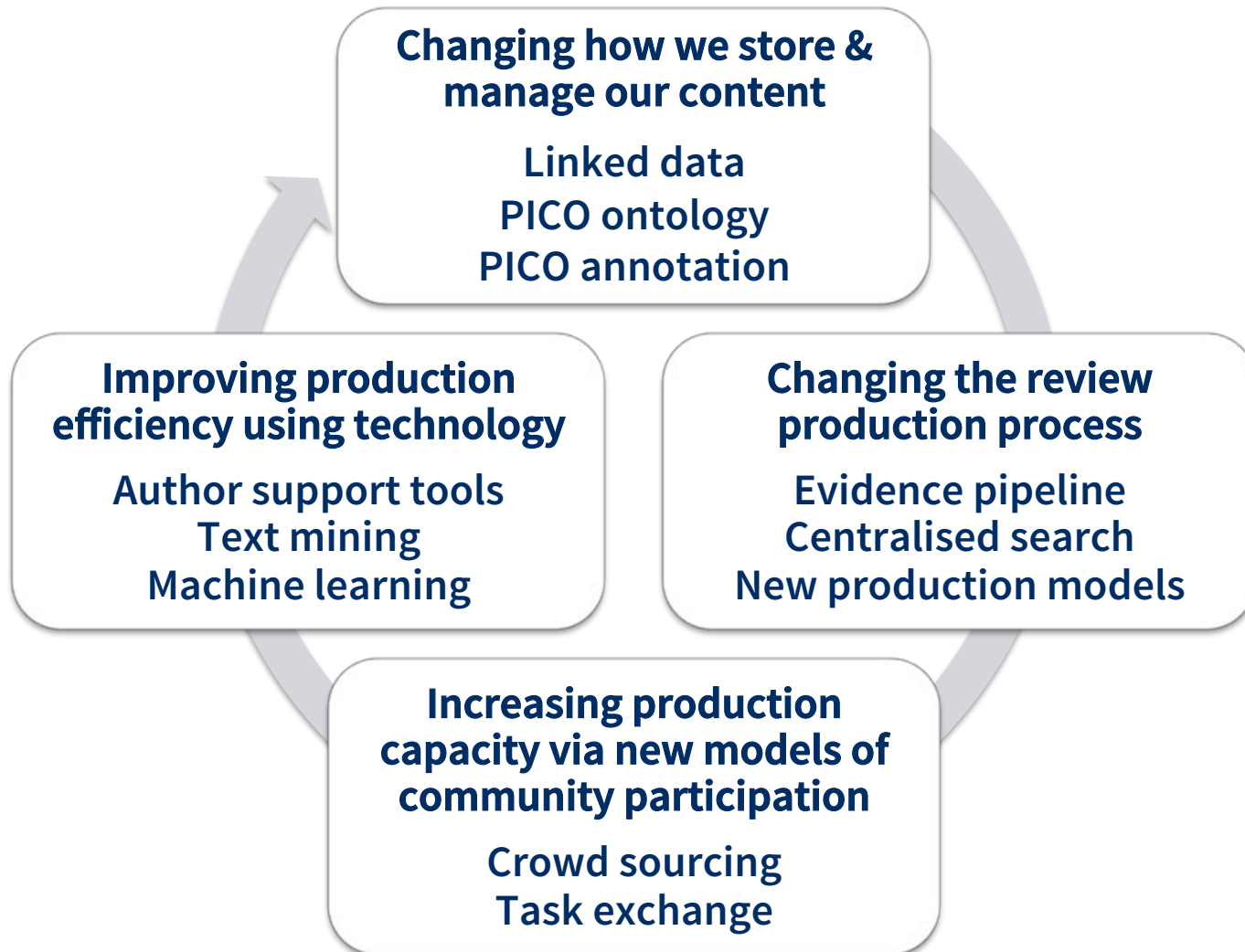


write

analyze



Cochrane operational projects



Objectives

Improve usability & utility of Cochrane data

Production efficiency



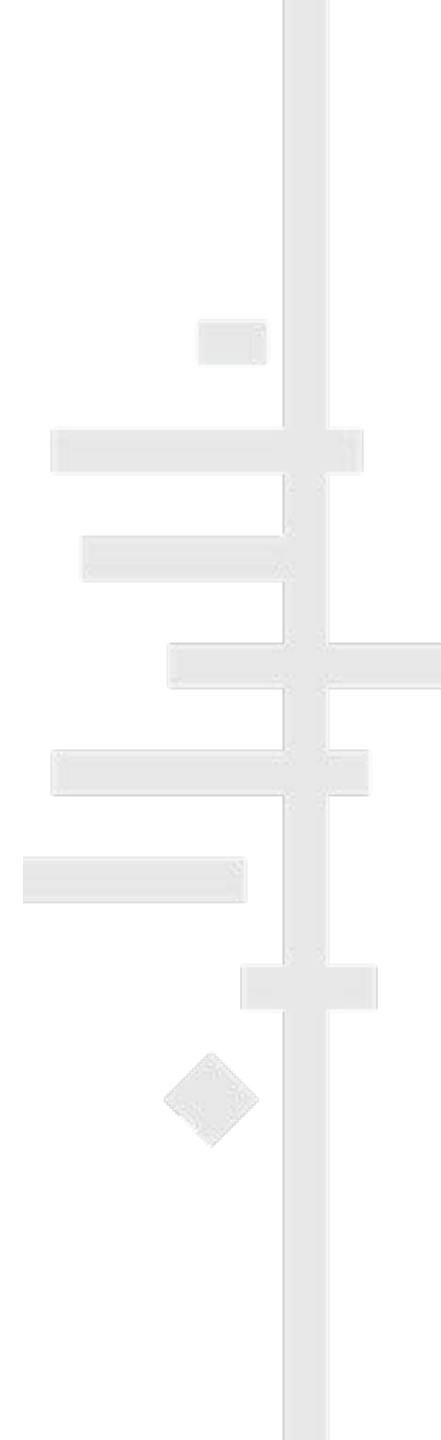
Quality & standardisation

Revenue protection & generation

Improve contributor engagement & experience

Project Transform

People + Process + Technology converge



Project Transform

4 components:

- **Evidence Pipeline:** uses machine learning and text mining to make study identification more efficient and semi-automated – **including Centralized Search Service**
- **Getting Involved:** uses crowdsourcing to get more people involved in tasks (**URL coming soon!**)
- **Task Exchange:** Platform for brokering tasks (**taskexchange.cochrane.org**)
- **Production Models:** New models of organising human effort in review production
- More info at **cochrane.org/transform**

Project Transform

Project Executive

Julian Elliott (Co-Lead), James Thomas (Co-Lead), Sally Green, Chris Mavergames, Steve McDonald, Anna Noel-Storr, David Tovey, Tari Turner

Project Team

Clive Adams, Lorne Becker, Linn Brandt, Rachel Churchill, Agustin Ciapponi, Gordon Dooley, Ruth Foxlee, Demian Glujovsky, Toby Lasserson, Geraldine Macdonald, Sue Marcus, Rupert McShane, Melissa Murano, Charlotte Pestridge, Daniel Perez Rada, Gabriel Rada, Jacob Riis, Ian Shemilt, Chris Watts, Karla Soares-Weiser, and IKMD developers

Project Component Co-Leads

Evidence Pipeline: James Thomas, Steve McDonald

Getting Involved: Anna Noel-Storr, Chris Mavergames

Task Exchange: Anna Noel-Storr, Chris Mavergames, Julian Elliott, Tari Turner

Production Models: Julian Elliott, David Tovey

Evidence Pipeline



SEARCH THE COCHRANE LIBRARY

Title, Abstract, Keywords

or try an [Advanced Search](#)

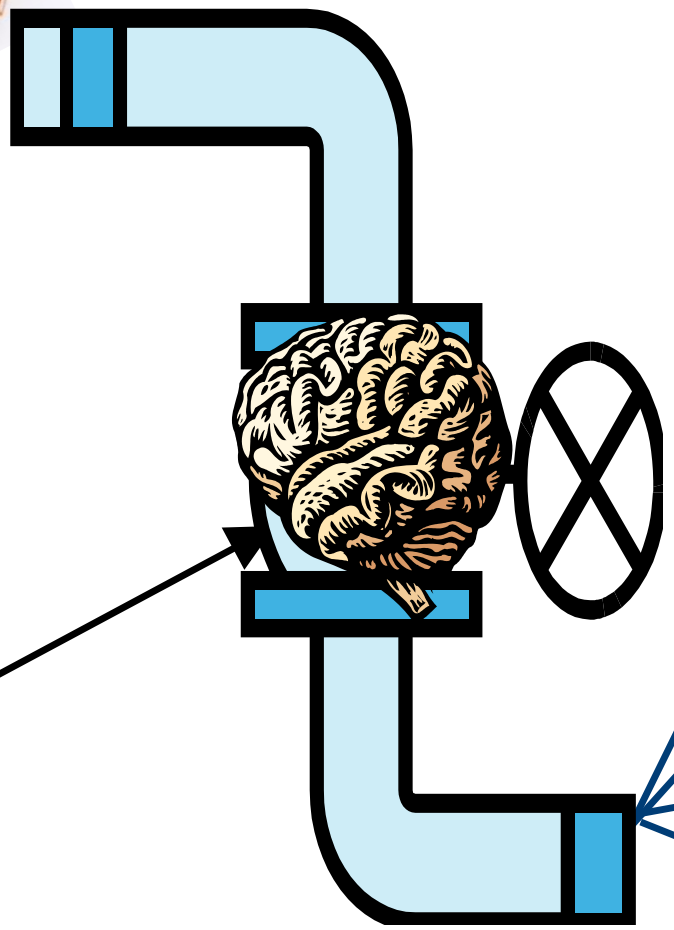
COCHRANE DATABASE OF SYSTEMATIC REVIEWS

Issue 9 of 12, September 2014
(Updated Daily) | [Contents](#)

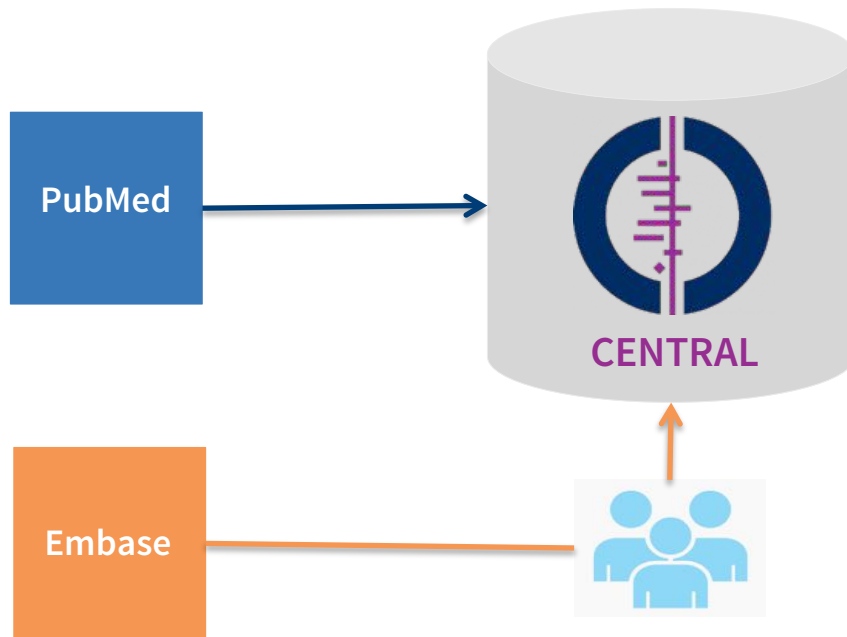
- BROWSE BY TOPICS
- [Blood disorders \(152\)](#)
 - [Cancer \(512\)](#)
 - [Child health \(1737\)](#)
 - [Complementary & alternative medicine \(597\)](#)
 - [Consumer & communication strategies \(78\)](#)
 - [Dentistry & oral health \(160\)](#)
 - [Developmental, psychosocial & learning problems \(119\)](#)
 - [Diagnosis \(27\)](#)
 - [Epidemiology & prevention \(119\)](#)
 - [Health services research \(119\)](#)
 - [Injury prevention & control \(119\)](#)
 - [Maternal & child health \(119\)](#)
 - [Medical education \(119\)](#)
 - [Nursing \(119\)](#)
 - [Pharmaceuticals \(119\)](#)
 - [Public health \(119\)](#)
 - [Rehabilitation \(119\)](#)
 - [Systematic reviews \(119\)](#)
 - [Thrombosis & haemostasis \(119\)](#)
 - [Vaccines \(119\)](#)
 - [Women's health \(119\)](#)

“Intelligence” from:

- Completed reviews
- CRG specialised registers
- Search strategies
- Citation networks...



Centralised Search Service (CSS): What we currently do

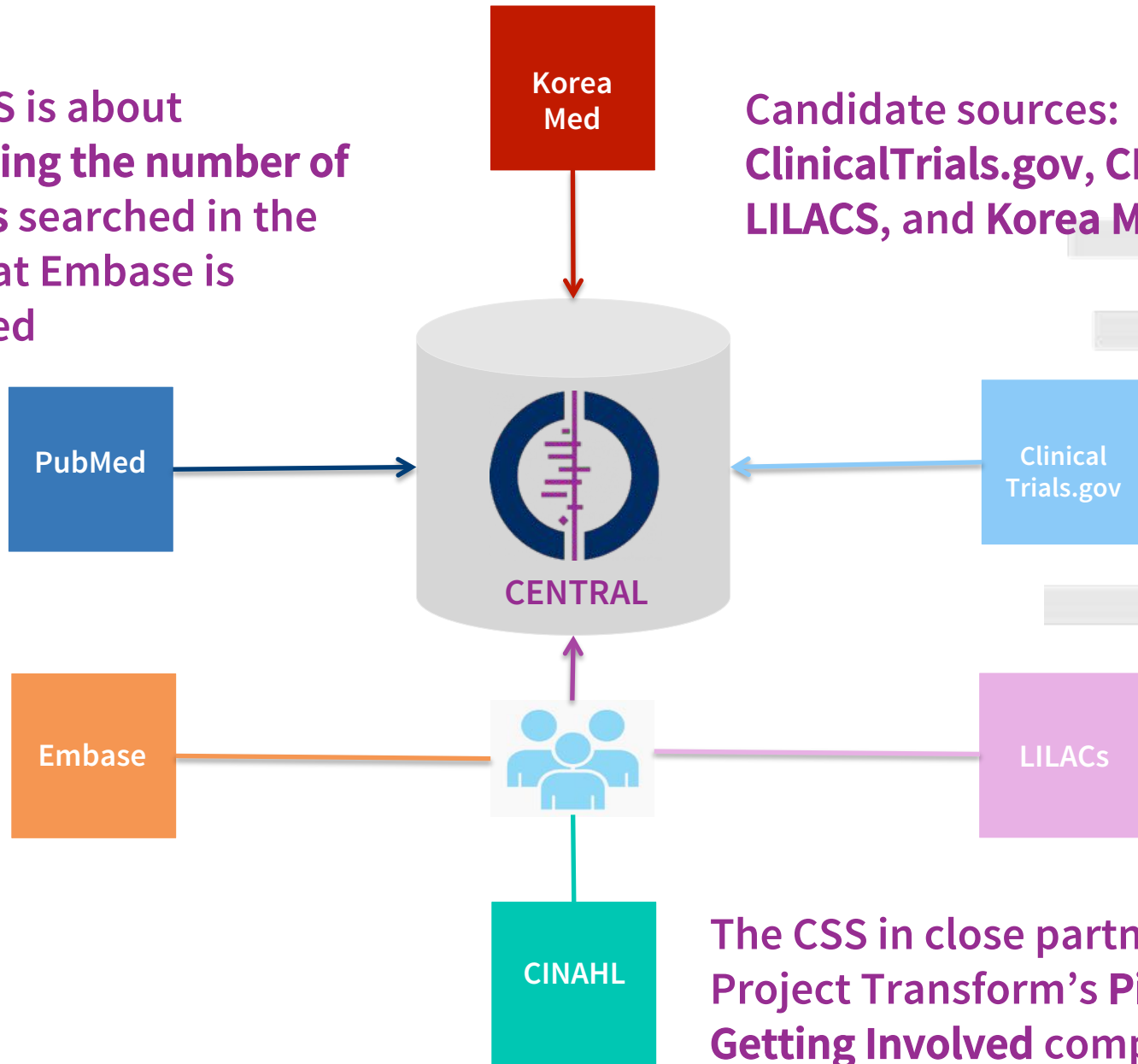


We currently have two centralised searches in place: the PubMed 'direct feed' and the Embase feed in some records are directly fed into CENTRAL, whilst others are screened for eligibility by a crowd

Future plans

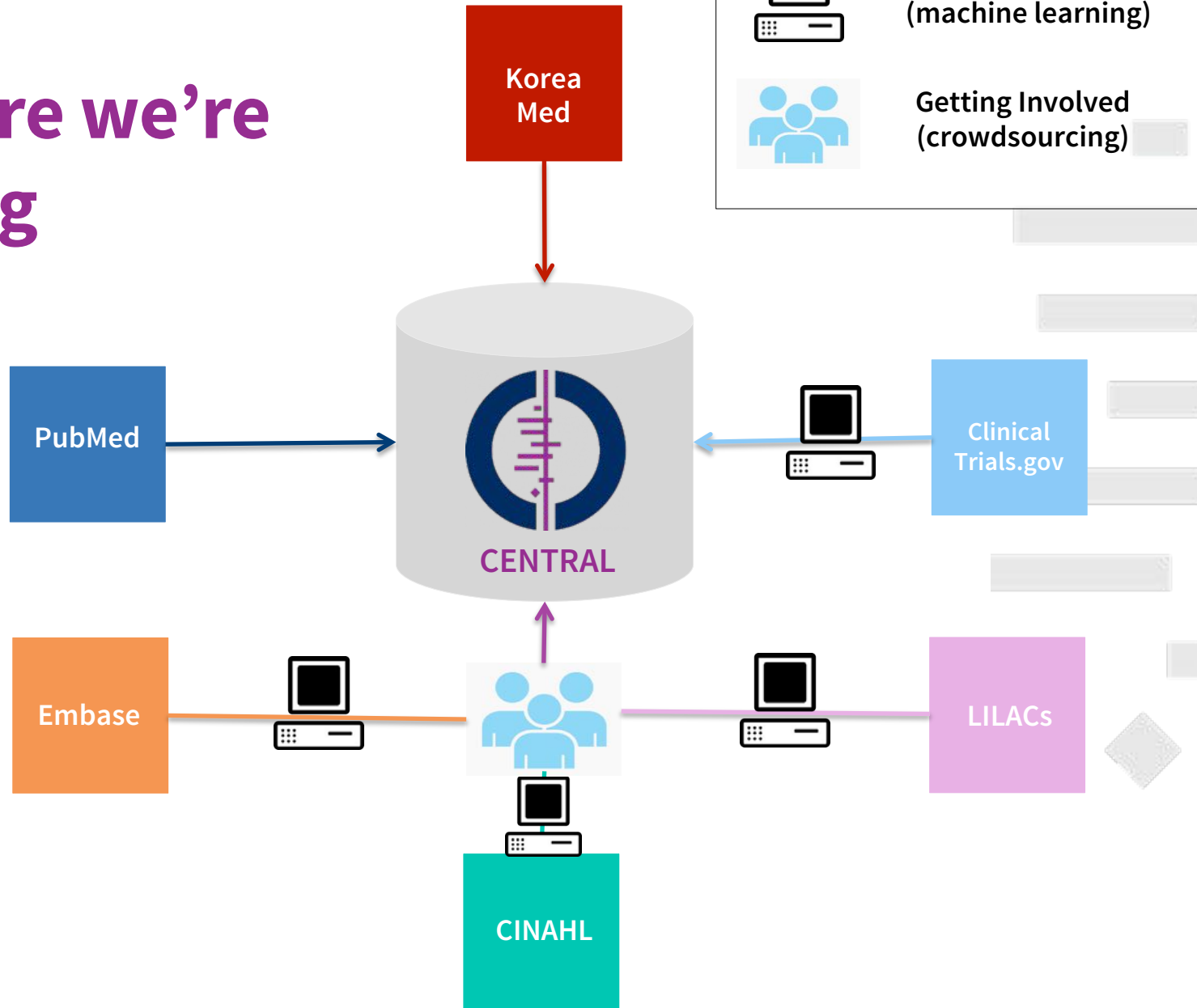
The CSS is about increasing the number of sources searched in the way that Embase is searched

Candidate sources: ClinicalTrials.gov, CINAHL, LILACS, and Korea Med



The CSS in close partnership with Project Transform's Pipeline and Getting Involved components

Where we're going



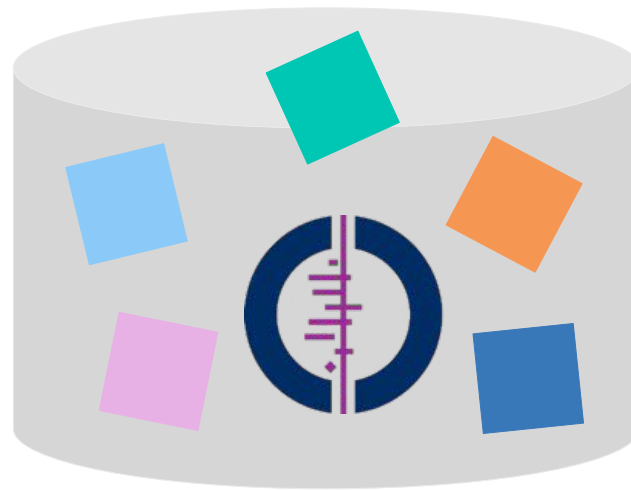
Why?



Multi-source searching per review/per review group to identify reports of randomised trials

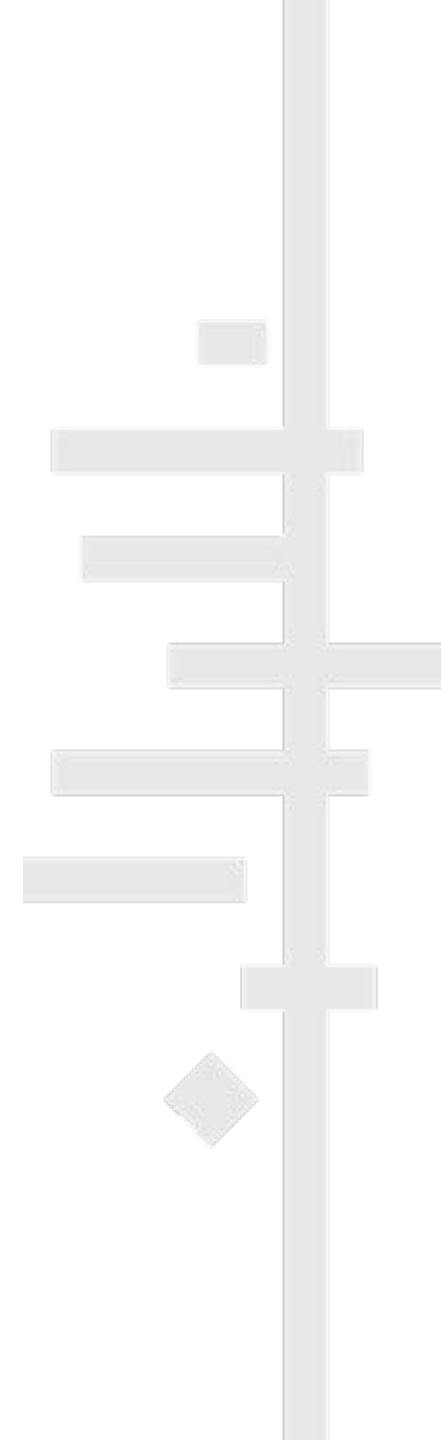
Time spent searching
Time spent screening
Duplication of effort

Why?



Endgame: Just search CENTRAL

Time saved searching
Time saved screening
Reduction in duplication of effort



Evidence Pipeline

Pakari et al. *Nutrition Journal* 2015, **14**:1
<http://www.nutritionjournal.com/content/14/1/141>



RESEARCH Open Access

Zinc and vitamin A supplementation fails to reduce sputum conversion time in severely malnourished pulmonary tuberculosis patients in Indonesia

Tevino A Pakari^{1,2*}, Dina Paryadi^{3,4}, Ni Made Desy Suradi⁵, Michael Salean¹, Nining Darmawati⁶, Hans Bar⁷, Koos van der Velden⁸, Wil MV Dolmans⁹, Joë Wilt van der Meer¹⁰

Abstract

Background: A previous study showed that combination of zinc and vitamin A reduced sputum conversion time in pulmonary tuberculosis (TB) patients.

Objective: We studied the efficacy of which single micronutrient contributed more to the sputum conversion time.

Methods: In a double-blind randomized community trial, newly sputum smear positive pulmonary TB patients were assigned randomly to receive zinc, vitamin A, zinc + vitamin A or placebo on top of TB treatment. Patients were asked to deliver their sputum on weekly basis to measure positivity of the bacteria. Nutritional status, chest x-ray, hemoglobin, C-reactive protein (CRP), retinol and zinc level were examined prior to, after 2 and 6 months of treatment.

Results: Initially, 500 patients were enrolled, and 255 finished the treatment. Most patients were severely malnourished (mean BMI 16.5 ± 2.2 kg/m²). Patients in the zinc + vitamin A group showed earlier sputum conversion time (mean 1.9 weeks) compared with that in the other groups, however the difference was not significant. Also, no benefit could be demonstrated of any of the used supplementations on clinical, nutritional, chest x-ray or laboratory findings.

Conclusions: This study among severely malnourished TB patients, did not confirm that single or combined supplementation of zinc and vitamin A significantly reduced sputum conversion time or had other significant benefit.

Background
The presence of micronutrient deficiencies among tuberculosis (TB) patients has led to the question whether micronutrient supplementation would give additional benefits for the patients on top of the TB treatment [1]. In a previous clinical trial of our group found that combination of zinc and vitamin A supple-

mentation, which began as early as 2 weeks after the administration of standard anti-TB treatment [2]. Vitamin A, as found as retinol in plasma, is one of important micronutrient which has specific immune function [3]. The presence of vitamin A deficiency in sputum-positive pulmonary TB patients compared with healthy subjects was confirmed [1,4], and associated

Population 1

Tuberculosis C0041296, Patient C0030705, Pulmonary tuberculosis C0041327, Blind person C0025065;

Methods: In a double-blind randomize... X

Intervention 1

Vitamin A C0042839, Zinc C0043481, Smear test C0444186, Therapeutic procedure C0087111;

Methods: In a double-blind randomize... X

Outcomes 1

C-reactive protein C0006560, +2 C0740156, Hemoglobin finding C1561562, Plain chest X-ray C0039985, Vitamin A measurement C0373745, Zinc measurement, urine C0428572, Before C0332152, Status C0449438, month C0439231;

Nutritional status, chest x-ray, hemogl... X



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Become a Cochrane citizen scientist. Anybody can join our collaborative volunteer effort to help categorise and summarise healthcare evidence so that we can make better healthcare decisions.

Give it a try

2125

Contributors

31

Countries

725784

Classifications

Just 60 seconds a day can make a difference

In the last 20 years research output has grown exponentially making it really difficult to keep up with the evidence. As a Cochrane citizen scientist you can help us do this.

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2125

Contributors

31

Reviews

725784

Classifications

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“Soft Launching”

A bigger team than you think

Connect with the global Cochrane community to get your review done more quickly

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What is Task Exchange?

Task Exchange is a platform that connects people who need help with their Cochrane reviews with people who have the time and expertise to help.

Here's how it works...



Work with experts

Browse our list of experts when you need help. Build a profile to be seen by those looking for help.



Post a task

Let people know what help you need and when you need it. Find people with the right skills for your review.



Respond to a task

Find a task that matches your expertise and availability. Contact the task author directly to show your interest.

taskexchange.cochrane.org

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taskexchange.cochrane.org

Production Models

Exploratory phase complete (26 interviews and >100 survey responses) & report drafted; identified opportunities to improve production models in a range of ways including opportunities to:

- clarify roles and expectations of authors and Cochrane Review Groups;
- ensure continuity and consistency of input into reviews;
- actively coordinate the review process;
- centralise some review production steps;
- break reviews into smaller ‘chunks’;
- improve approaches to capacity building and information sharing around review production

Now working on developing pilot projects to implement some of these ideas.

Target 6, Goal 1 – 2016 Strategy Targets

E. EFFICIENT PRODUCTION: Transform project

We will improve the way people, processes, and technologies come together to produce Cochrane content by releasing the first phase of improvements from our Transform project, including the versions of the cross-learning platforms: Tool Exchange and Getting Involved, and the machine-learning Evidence Explorer for study identification, and prototyping new production models.

Outcomes	Indicators of success, delivered by the Central Executive Team	Indicators of success, delivered by Cochrane Groups	Delivery timeline
<p>Transform will address four key challenges in content production through tool, process and people components:</p> <ol style="list-style-type: none"> 1. Evidence Explorer: Finding relevant research in a timely and reliable way. 2. Getting Involved: Developing pathways for potential new contributors. 3. Tool Exchange: Increasing the efficiency of working collaboratively. 4. Production Models: Ensuring our content is relevant and up-to-date. <p>For Group and contributor</p>	<p>Evidence Explorer</p> <ul style="list-style-type: none"> • Evidence Explorer v1.0.0 • Full launch of Tool platform and in use by 10 or more COs. • Initial use by computer science community. <p>Getting Involved Cochrane Connect</p> <ul style="list-style-type: none"> • Launch of 'beta' platform for cluster reviewing and in use by early adopters. • Two tools are available on platform. <p>Tool Exchange</p> <ul style="list-style-type: none"> • Launch of 'beta' platform and in use by early adopters. • Use by new Cochrane contributors. <p>Production Models</p> <ul style="list-style-type: none"> • Content production model assessment report published. • Selection of models for pilot completion. • Pilot phase commences. 		See 6.04



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Search... 🔍

Review production | Organizational info | Tools | News and events

Welcome



Quick Links

- Archie
- Cochrane Writing 101 2020
- Community Newsletter
- Editorial and Publishing Policy Resource
- FAQs
- Jobs
- Handbook for Systematic Review
- MECIR

Latest News and Events

Cochrane organizational information strategy - 2020

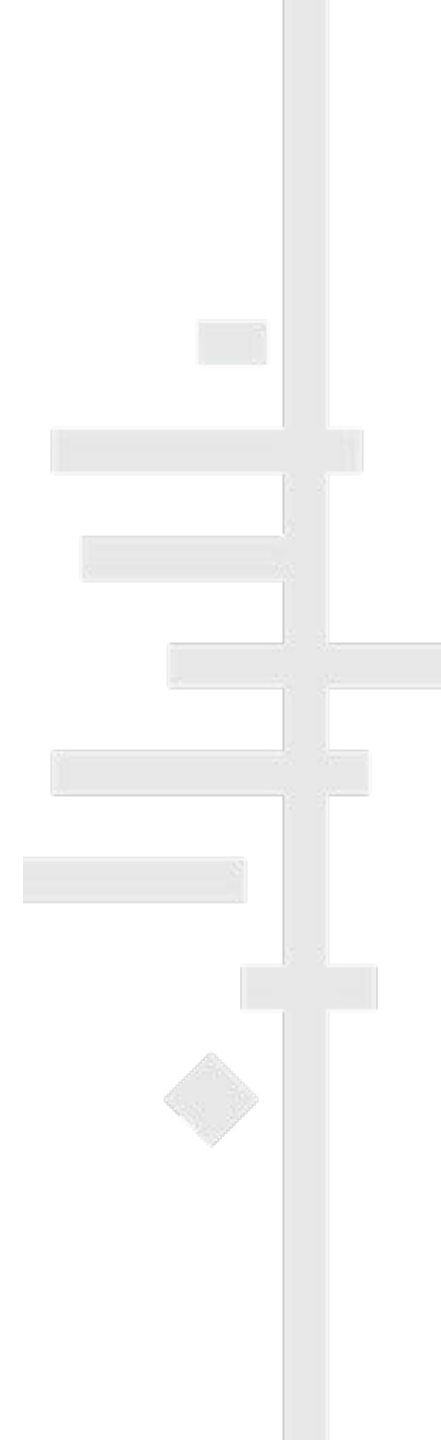
New webinar series -

...breathe...



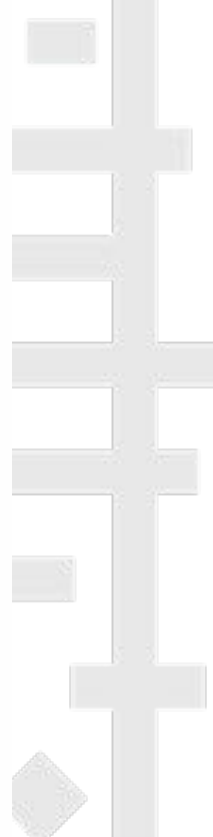
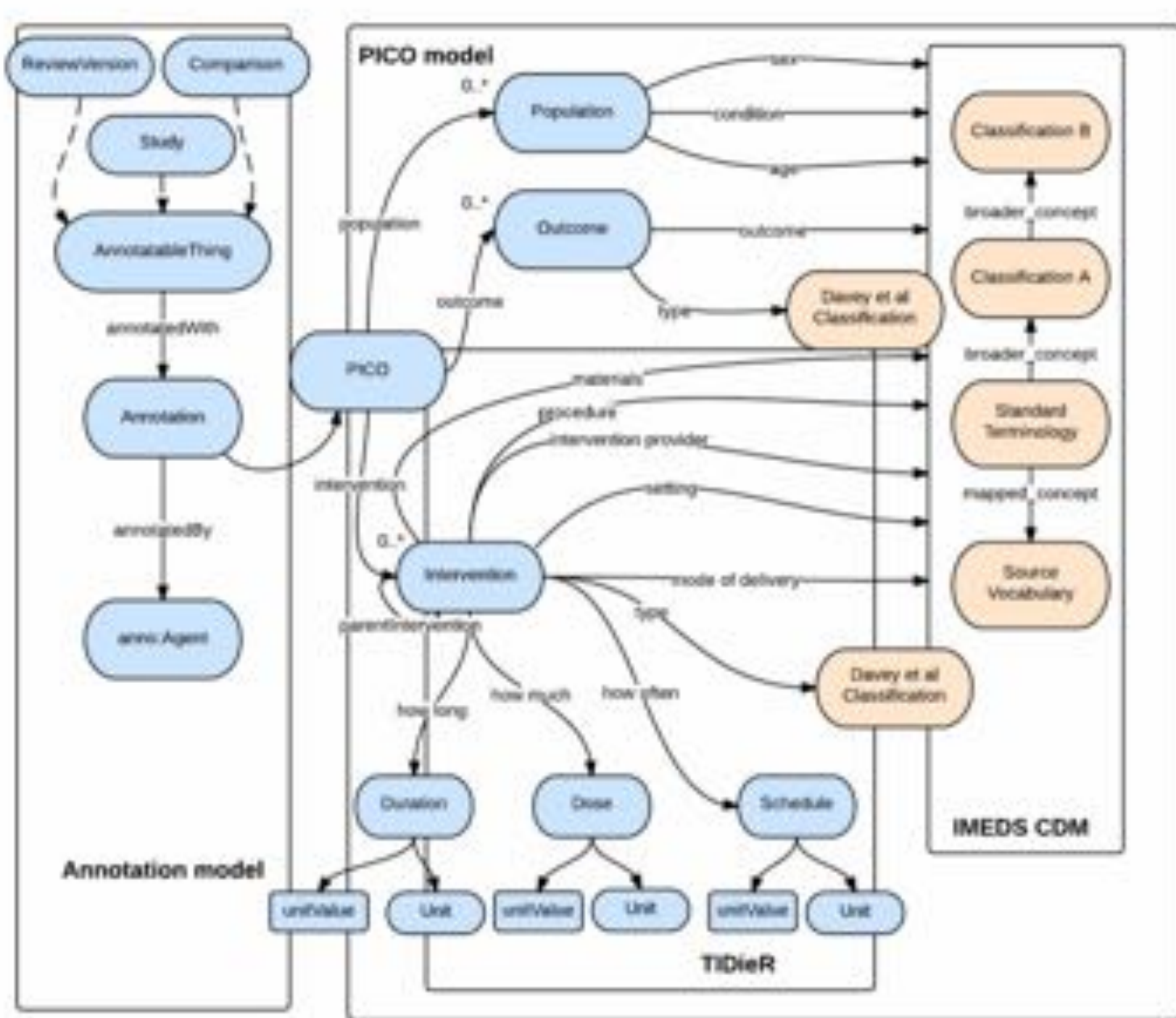
Linked Data Project: Update

PICO Annotation and PICOfinder



Linked Data: Overarching goals

- Enrich our content and data with metadata using controlled vocabularies (SNOMED CT, etc.)
- Construct knowledge models and structures (ontologies) that will allow re-use of this metadata (annotations) for both downstream (dissemination) and upstream (production) use
- Become more interoperable with other projects, products, datasets, and systems
- Improve production (“smarter data”) and dissemination of evidence (“unlocking the evidence”)
- <http://linkeddata.cochrane.org>



Controlled terminology sets (vocabularies)



ihtsdo Leading healthcare terminology worldwide

Home | IHTSDO

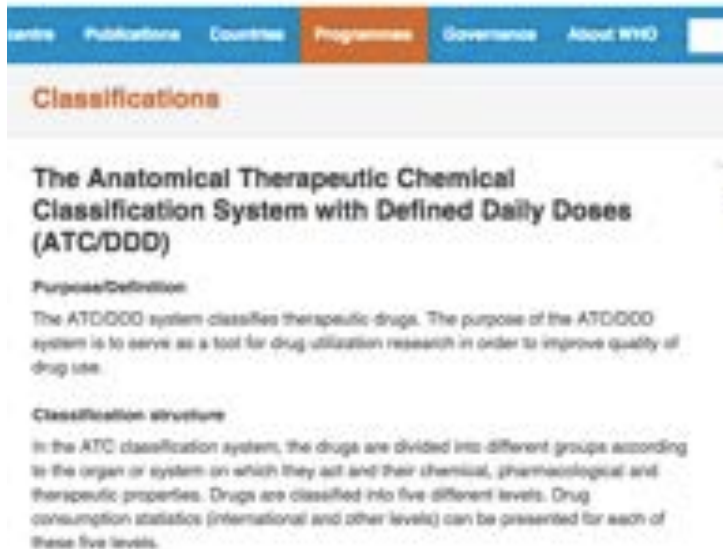
SNOMED CT

The Global Language of Healthcare

SNOMED CT is the most comprehensive and precise clinical health terminology product in the world. It is the International Health Terminology Standards Development Organisation (IHTSDO).

SNOMED CT is now accepted by the World Health Organization.

Patients and health professionals



Centre | Publications | Countries | **Programmes** | Governance | About WHO

Classifications

The Anatomical Therapeutic Chemical Classification System with Defined Daily Doses (ATC/DDD)

Purpose/Definition

The ATC/DDD system classifies therapeutic drugs. The purpose of the ATC/DDD system is to serve as a tool for drug utilization research in order to improve quality of drug use.

Classification structure

In the ATC classification system, the drugs are divided into different groups according to the organ or system on which they act and their chemical, pharmacological and therapeutic properties. Drugs are classified into five different levels. Drug consumption statistics (international and other levels) can be presented for each of these five levels.



NIH U.S. National Library of Medicine

Databases | Find, Read, Learn | Explore MLN | Research at NLM

Unified Medical Language System® (UMLS®)

Home > Biomedical Research & Informatics > UMLS

RxNorm

RxNorm provides normalized names for clinical drugs and links its names to its including those of First Databank, Micromedex, MedSpan, Gold Standard Drug between systems not using the same software and vocabulary.

RxNorm now includes the National Drug File - Reference Terminology (NDF-RT) mechanism of action, physiologic effect, and therapeutic category.



MedDRA | Medical Dictionary for Regulatory Activities

Home | About MedDRA | How to Use | Training | Subscriptions

Welcome to MedDRA

In the late 1990s, the International Conference on Harmonisation of Technical Requirements for Human Use (ICH) developed MedDRA, a rich and highly specific standardized medical terminology information internationally for medical products used by humans... [more]

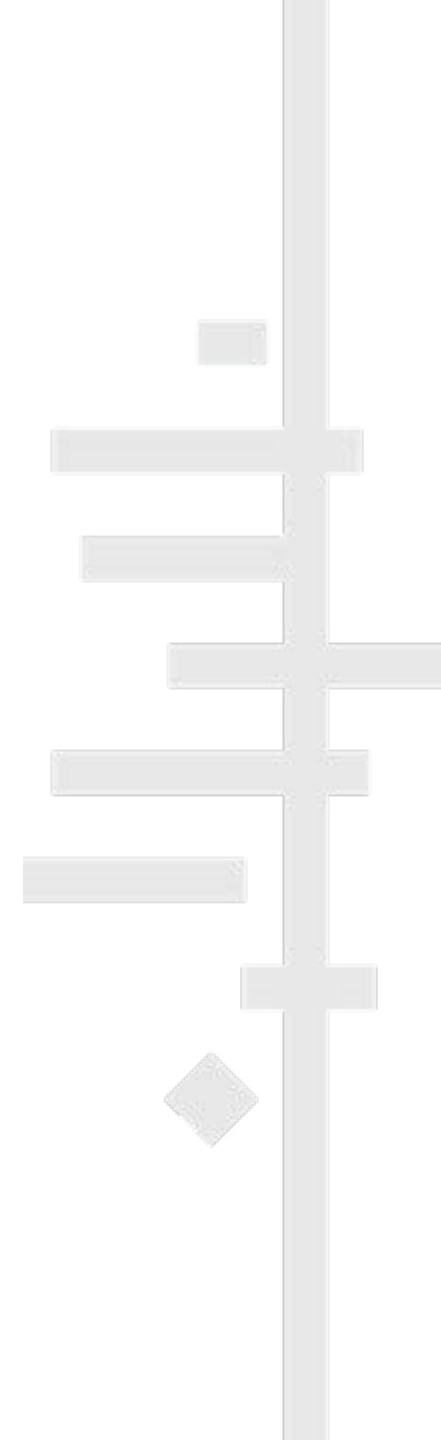
Multilingual Access [#E](#) [Celtica](#) [Nederlandse](#) [English](#) [Français](#) [Deutsch](#) [Magyar](#)

Discover MedDRA

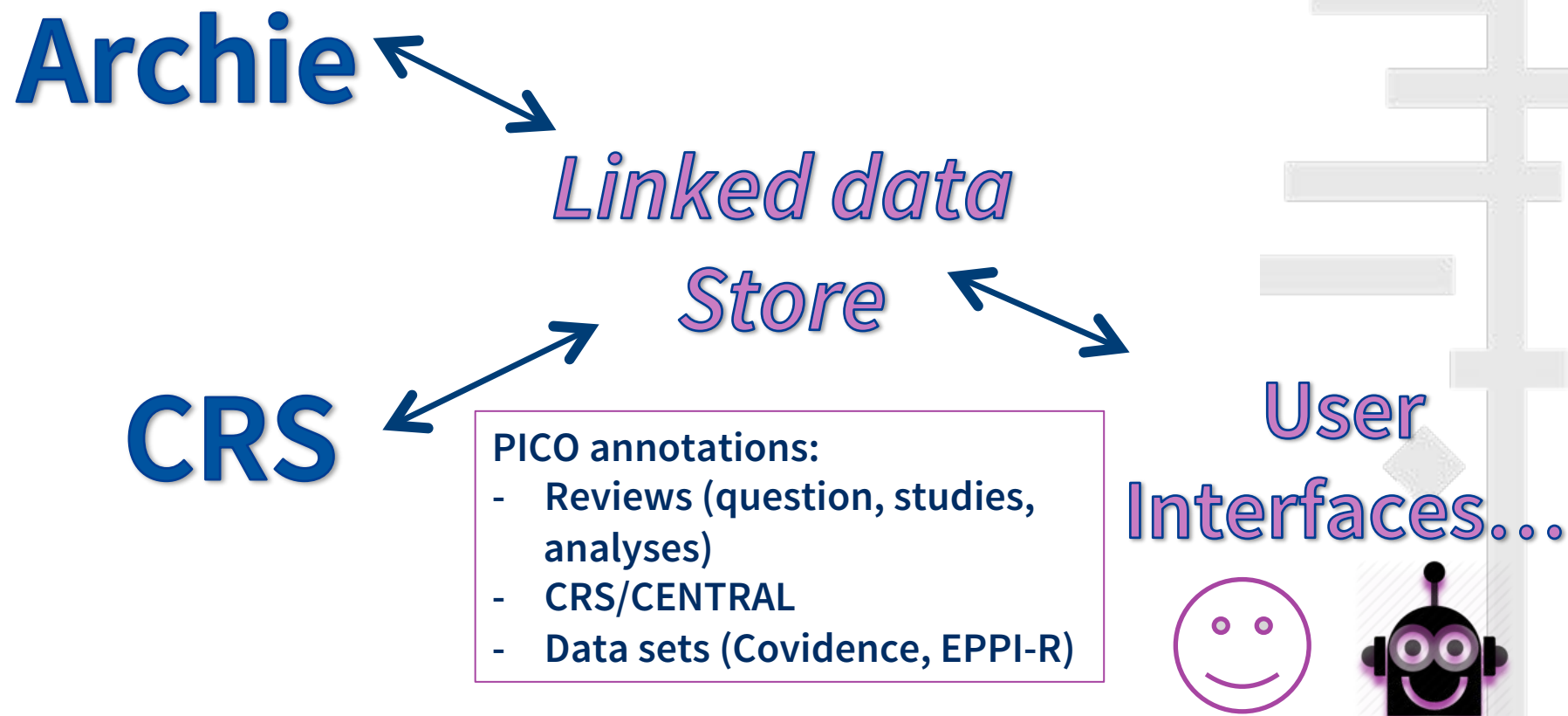
Existing Cochrane databases

Archie

CRS

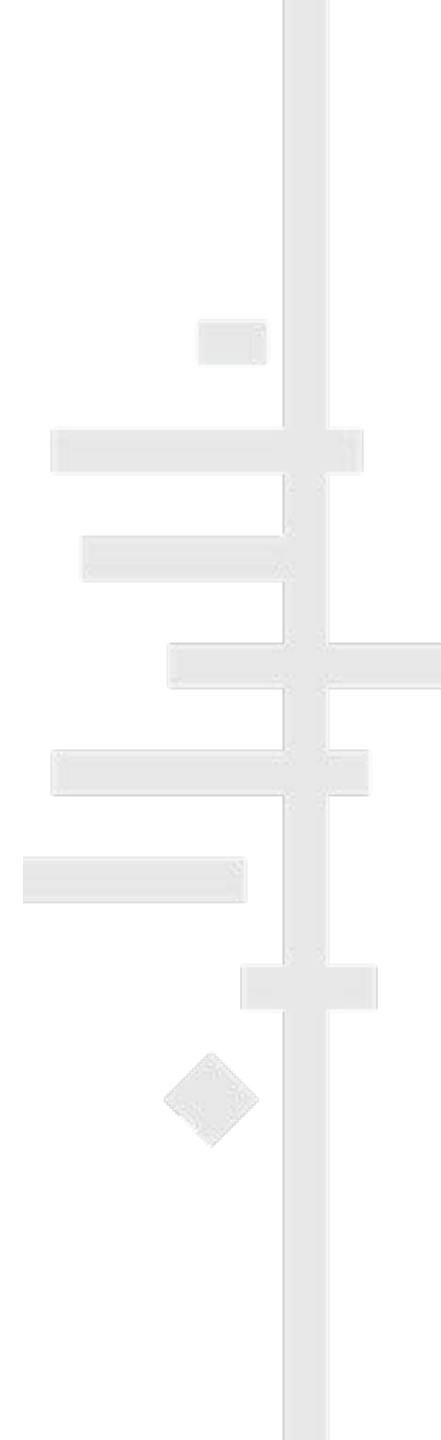


A new Cochrane *PICO* database



PICO Annotator

Annotating Cochrane Review content



Home

Methods

Criteria for considering studies for this review

Types of studies

We included randomised controlled trials (RCTs) evaluating and comparing antibiotics to a placebo, or different classes of antibiotics for acute sinusitis, and reported in full-text. We included trials having a sample size of at least 30 participants with acute maxillary sinusitis. This is to guarantee that data in individual studies are as unbiased as possible. Also in very small samples many estimators are known to be sensitive to variation.

We excluded studies reported only as abstracts because there is evidence that there are discrepancies between data reported in the abstract and the final published full report and that information on trial quality indicators is often lacking (Chokkalingam 2008; Hopewell 2006). Thus we required full-text reports to ensure reliable data extraction and assessment of risk of bias. To diminish the risk of publication bias, we attempted to contact authors of potential abstracts to obtain information as to whether a full-text report of the study (unpublished or published) was available.

Types of participants

We included trials with adults or trials that separately reported data on subgroups of adults. We accepted adolescents (at least 11 years old) if less than 20% of participants were under 18 years of age.

Acute maxillary sinusitis was defined by:

1. a history of URTI lasting seven to 30 days, with at least two clinical signs or symptoms (sinus pain at palpation, postnasal drip, purulent nasal discharge, nasal obstruction, unilateral facial pain, maxillary toothache, impaired sense of smell); or
2. radiography, ultrasound or other imaging; or
3. bacterial culture from a sinus secretion obtained by puncture or endoscopy and irrigation or aspiration.

In studies where the clinical diagnosis was not clearly described, diagnosis of acute maxillary sinusitis should be confirmed in at least of 80% of participants by imaging or culture.

We included trials with a mixed population of acute (symptoms less than 30 days) and non-acute sinusitis or acute exacerbations of chronic sinusitis if they separately reported data on the subgroup with acute sinusitis, or if at least 80% of participants had acute sinusitis.

We excluded trials that focused on patients with complicated sinusitis such as pansinusitis or frontal sinusitis (or solely ethmoidal or sphenoidal sinusitis), or infections

PICO Annotator

Step 1: Participants

Asthma

parent term: Asthma
Source: MeSH (ID: D000340)

Asthma

parent term: Lesson (Of Bronchus...
Source: SNOMED (ID: 158264001)

Asthma

parent term: Allergic Conditions fac...
Source: MeSH (ID: D000340)

Asthma Without Status Asthmaticus

parent term: Asthma...
Source: SNOMED (ID: 30270002)

Asthma With Status Asthmaticus

parent term: Acute Asthma...

PRCO Annotator

Step 1: Participants

sex 1

age range...

- Child
 - Child, Preschool 2-5 years
 - Adolescent 12-18 years
 - Child 6-12 years
- Adult
- Infant

asthma and

- ON **asthma**
parent term: Asthma
(source: MeSH, ID: D000502)
- Asthma**
parent term: Allergic Conditions New
(source: MeSH, ID: D000502)
- Asthma**
parent term: Lesion Of Bronchus ...
(source: SNOMED ID: 100010011)

Step 2: Interventions

classification 1 and

corticosteroids

- ON **Corticosteroids**
parent term: Ophthalmological And Otorhinolaryngeal Preparations
(source: WHO ID: D000502)
- ON **Corticosteroids**
parent term: Otolactics
(source: WHO ID: D000502)
- ON **Corticosteroids**
parent term: Corticosteroids
(source: WHO ID: D000502)
- ON **Corticosteroids**
parent term: Decongestants And Other Nasal Preparations For Topical Use
(source: WHO ID: D000502)
- ON **Corticosteroids**
parent term: Agents For Treatment Of Hemorrhoids And Anal Fissures For Topical Use
(source: WHO ID: D000502)
- ON **Corticosteroids**
parent term: Corticosteroids
(source: WHO ID: D000502)
- ON **Corticosteroid Derivatives**
parent term: Antipruritic Preparations
(source: WHO ID: D000502)

PRCO Annotator

Step 2: Interventions

classification 1 and

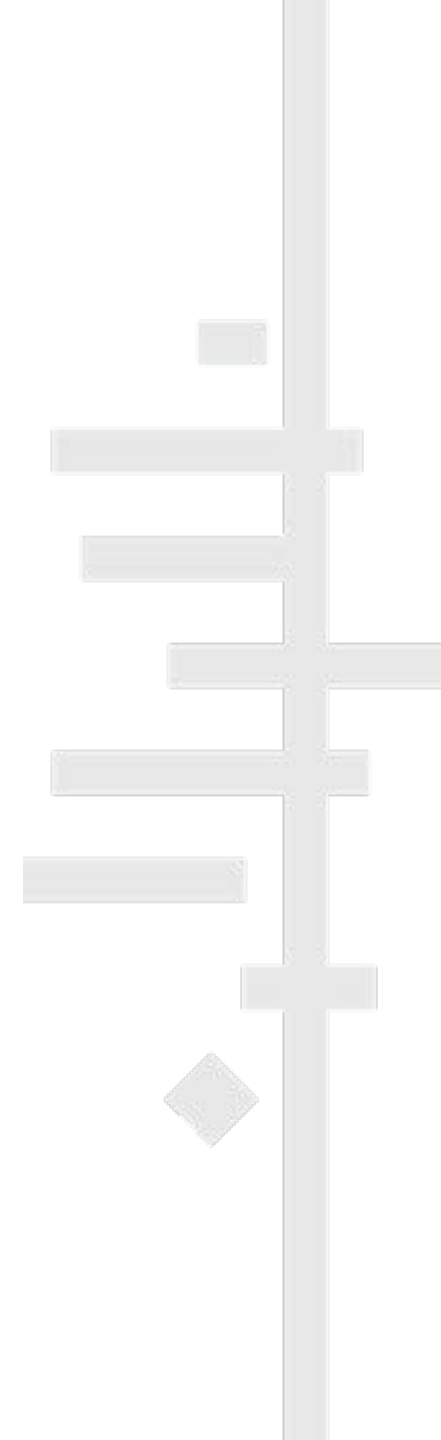
intranasal corticosteroids

none | split 1 | mixed | split 1

none | split 1

+ ON

New Synonyms ←



Methods

Criteria for considering studies for this review

Types of studies

We included randomised controlled trials (RCTs) with a parallel-group design, of at least 12 weeks' duration. We did not exclude studies on the basis of blinding. We excluded cross-over trials, as we were looking at long term effects including adverse events.

Types of participants

We included RCTs that recruited participants with a clinical diagnosis of COPD based on the following (GOLD 2013).

1. Forced expiratory volume after one second (FEV₁)/forced vital capacity (FVC) ratio < 0.7, which confirms the presence of persistent airflow limitation.
2. Several of the following key indicators:
 1. Progressive and/or persistent dyspnoea (breathlessness);
 2. Chronic cough;
 3. Chronic sputum production; and
 4. History of exposure to risk factors (tobacco smoke, smoke from home cooking and heating fuels, occupational dusts and chemicals).

We excluded RCTs in which participants had to have asthma as well as COPD to be included.

Types of interventions

We included studies in which participants were randomly assigned to receive the following:

1. Salmeterol 50 µg or placebo twice daily;
2. Formoterol 12 µg or placebo twice daily;
3. Formoterol 24 µg or placebo twice daily.

We included studies that allowed concomitant short-acting bronchodilators, provided they were not part of the trial treatment under study. We did not include studies in which most participants were receiving other COPD treatments.

Types of outcome measures

Primary Outcomes

PICO Annotator

Population:

Male and Female, Young Adult 18-24 years and Adult 19-44 years and Middle Aged 45-64 years: Chronic Obstructive Airways Disease;

Interventions:

- 1.) [Pharmacological] Salmeterol ;
- 2.) [Pharmacological] Formoterol ;

Comparators:

[No active treatment] Placebo ;

Outcomes:

- 1.) Quality of Life - Quality of life;
- 2.) Physiological or clinical - Severe COPD exacerbations;
- 3.) Physiological or clinical - Moderate COPD exacerbations;
- 4.) Mortality - Mortality: all-cause;
- 5.) Adverse events - Non-fatal serious adverse events: all-cause;
- 6.) Physiological or clinical - lung function;
- 7.) Withdrawals or dropouts from study - Withdrawals from study treatment;



Goal 2, Target 7 – 2016 Strategy Targets

Goal 2 Targets in 2016:

7. USER-CENTRED DESIGN AND DELIVERY – Conference Review (PRC) annotation

We will make the content and data behind our reviews more useful and discoverable by completing the linked data annotation of reviews and protocols at question, included study, and analysis levels.

Outcome	Indicators of success defined by the Central Executive Team	Indicators of success defined by Evidence Group	Delivery deadline
Cochrane PRCs are short summaries of a clinical question addressed by one or more Cochrane Reviews. Target audience for Cochrane PRCs are healthcare practitioners and policy makers, and other informed users of health care (e.g. decision makers). This target will complete the background work required to enable PRC views of Cochrane evidence in the Cochrane Library and elsewhere.	For all reviews and protocols, a template set of PRC annotations have been developed at question, included study, and analysis levels.	CRs are familiar with linked data tasks and annotation work.	Jan 2016
	An annotation tool has been added to the workflow in review, author, and the CR.	TRCs are trained in annotation and there is engagement with the CR on governance of metadata.	Dec 2016
	Scoping of user APIs is in place for external business cases and data feeds.	TRC begin annotation of new reviews in their Group and in collaboration with Harmon. CR, PRC annotation studies in the CR.	Jan 2016

Goal 2, Target 7 – 2016 Strategy Targets

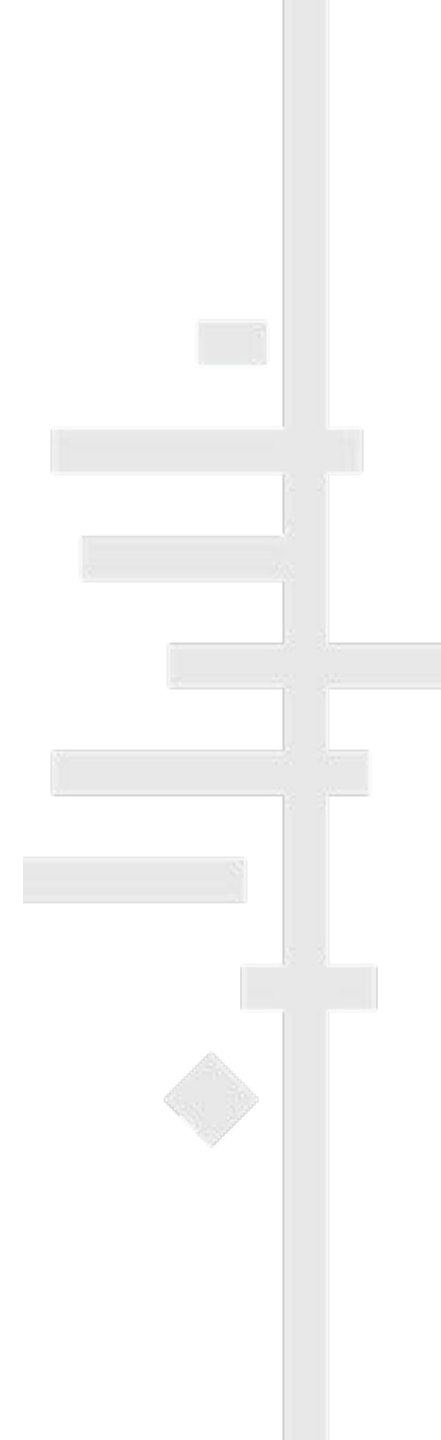
Goal 2 Targets in 2016:

<p>7. USER-CENTRIC DESIGN WITH DELIVERABLES - Cochrane Review PCDs promotion</p> <p>We will make the content of data behind our reviews more useful and discoverable by providing the information in a user-centric design. This will include:</p> <p>Reviewers</p> <p>Expected Year: 2016</p>	<p>For all reviews and protocols, a complete set of PCDs applications have been developed and published.</p> <p>By November 2016, an assessment tool has been added to the workflow in terms, features, and the UI.</p>	<p>CDs are familiar with linked data tools and application work.</p> <p>TICs are trained in annotation and there is engagement with the ICI or governance of datasets.</p>	<p>See 2014</p> <p>Dec 2016</p>
<p>Cochrane PCDs are short summaries of a clinical question and evidence synthesis. Cochrane PCDs are available in a variety of formats and are available in a variety of languages. The user will complete the background work required to create PCDs across all Cochrane evidence synthesis products.</p> <p>By year</p>	<p>Scaling of user APIs is in place for internal business cases and data feeds.</p>	<p>TCU begin reviewing all new reviews in their Group and in consultation with Harmon. All PCD annotation studies in the CD.</p>	<p>See 2014</p>

Cochrane Information Specialists

PICOfinder demo interface

Exploring, filtering, and visualizing
Cochrane evidence using PICO



https://data.cochrane.org/pico-finder

Population

- condition
- age
- sex

Intervention / Comparator

- classification
- materials / procedures

Outcome

- classification

Search

Reviews (212) Studies (200) Analysis (200) [Show Comparisons](#)

View View (21-212)

- ▶ [C0000800](#) (v1) Acetaminophen (paracetamol) for the common cold in adults
- ▶ [C0000827](#) (v2) Mupirocin A for mild cognitive impairment
[Add Population/Intervention](#) [Add Outcome/Target](#) [Display Review Filter](#)
- ▶ [C0000900](#) (v2) Cerebralysin for vascular dementia
[Add Outcome/Target](#) [Add Age \(If for Women and men\)](#) [Add Outcome/Target](#) [Show Populations and Settings](#)
- ▶ [C0002968](#) (v1) Galantamine for dementia
[Add Outcome/Target](#) [Add Outcome/Target](#)
- ▶ [C0007548](#) (v2) Interventions for preventing and reducing the use of physical restraints in long-term geriatric care
[Add Age \(If for Women and men\)](#) [Add Outcome/Target](#) [Add Outcome/Target](#)
- ▶ [C0007769](#) (v2) Caring for cognition
[Add Outcome/Target](#) [Add Outcome/Target](#) [Add Outcome/Target](#)
- ▶ [C0009380](#) (v1) Blood protein attenuating compounds for the treatment of Alzheimer's dementia
[Add Outcome/Target](#) [Add Outcome/Target](#) [Add Outcome/Target](#)
- ▶ [C0009329](#) (v4) Functional analysis-based interventions for challenging behaviour in dementia
[Add Outcome/Target](#) [Add Outcome/Target](#) [Add Outcome/Target](#) [Add Outcome/Target](#)
- ▶ [C0002054](#) (v2) Vitamin E for Alzheimer's dementia and mild cognitive impairment
[Add Outcome/Target](#) [Add Outcome/Target](#) [Add Outcome/Target](#) [Add Outcome/Target](#) [Add Outcome/Target](#)
- ▶ [C0000012](#) (v12) Alternative versus conventional institutional settings for birth
[Add Outcome/Target](#) [Add Outcome/Target](#) [Add Outcome/Target](#) [Add Outcome/Target](#)

 **Cochrane**
PICOfinder
Powered by Cochrane linked data.

Population

✦ condition >

🕒 age >

👤 sex >

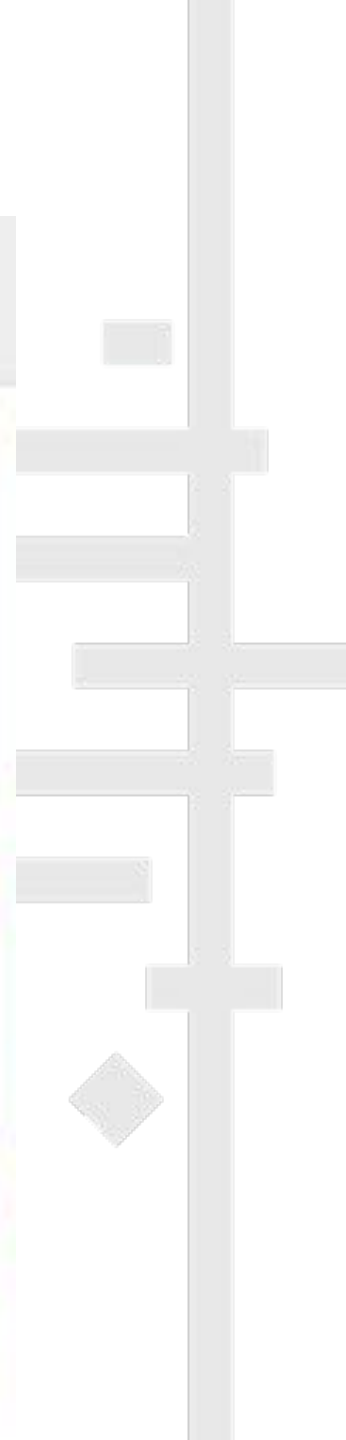
Intervention / Comparator

⚙️ classification >

💧 materials / procedures >

Outcome

♥️ classification >

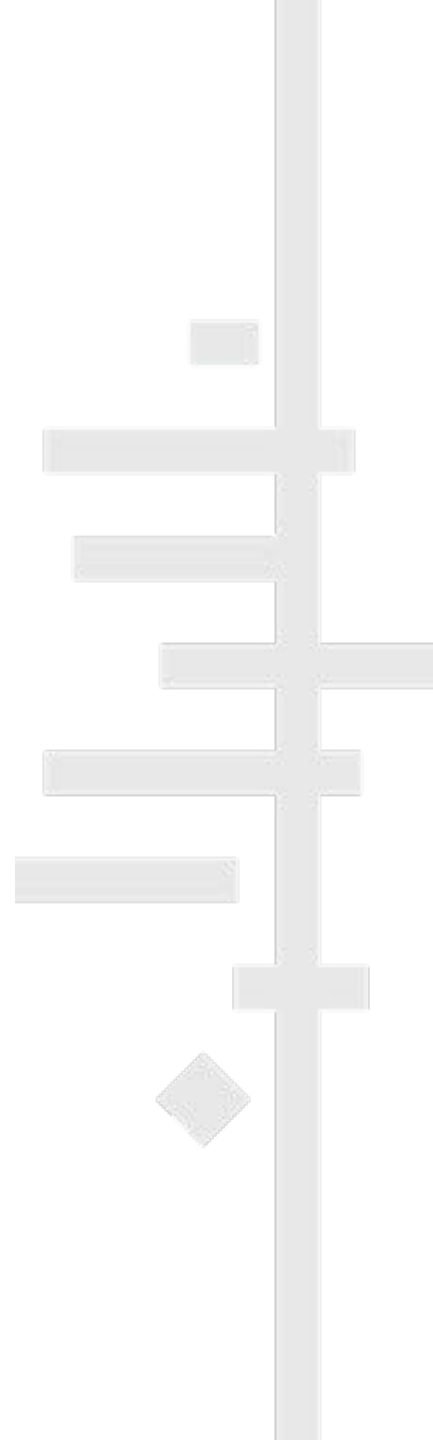


 **Cochrane**
PiCOfinder
Powered by Cochrane linked data

Population

condition

Asthma <small>SEARCHED 2014/03/20</small>	<input type="checkbox"/>
Dementia <small>SEARCHED 15/04/2014</small>	<input type="checkbox"/>
Dementia Due To Alzheimer's Disease <small>SEARCHED 14/03/2014/2014</small>	<input type="checkbox"/>
Acute Asthma <small>SEARCHED 20/02/2014</small>	<input type="checkbox"/>
Mild Cognitive Impairment <small>SEARCHED 04/07/2014/2014</small>	<input type="checkbox"/>
Asthma <small>SEARCHED 12/03/2014</small>	<input type="checkbox"/>
Vascular Dementia <small>SEARCHED 17/09/2014</small>	<input type="checkbox"/>
Chronic Obstructive Pulmonary Disease <small>SEARCHED 13/03/2014</small>	<input type="checkbox"/>
Elderly <small>SEARCHED 08/02/2014</small>	<input type="checkbox"/>
Mixed Dementia <small>SEARCHED 15/04/2014/2014</small>	<input type="checkbox"/>



Navigation sidebar with search and filter options.

Navigation sidebar with search and filter options.

Navigation sidebar with search and filter options.

Vasod	
Vascular Dementia	CD007759
Operation On Vascular Graft	CD007759
Vascular Surgery Procedure	CD007759
Peripheral Vasodilators	CD007759
Peripheral Vasodilators	CD007759
Selective Calcium Channel Blockers With Mainly Vascular Effects	CD007759
Valproate	CD007759
Other Peripheral Vasodilators	CD007759
Vaccines	CD007759
Various	CD007759
Vaccines	CD007759
Viral Vaccines	CD007759
Pneumococcal Vaccines	CD007759
Bacterial Vaccines	CD007759
Vaccination Therapy	CD007759

▶ CD007759 (v2) Ginseng for cognition
 • Dementia • Male and Female • Ginseng Preparation

“Enabling” technology

- New interfaces and products for Cochrane evidence such as:
 - Dynamically-generated topic portals and interfaces 😊
 - Improved discoverability 😊
 - Comparator tools 😊
 - APIs for third-party systems and data feeds 🤖
- Facilitating:
 - Data re-use and repurposing 😊
 - Review production efficiency and intelligence 😊
 - Living sys reviews into living guidelines 😊
 - Creation of standards (PICO) for interoperability 🤖



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or write...

Available

to create your own content.

CONTENTMINE

How it Works | Open Science Prize | ContentMine and Hypothesis teaming up for proposal

Open Science Prize: ContentMine and Hypothesis teaming up for proposal

10th January 2016 by [Hypothesis](#)

We are pleased to announce that we're teaming up with Hypothesis to put forward a proposal to the Open Science Prize to mine and annotate the biomedical literature - using and producing loads of open data along the way.

A growing number of open data resources are either directly cited in the biomedical literature or have an indirect link to the content of articles or other research outputs. Unfortunately these links are often not visible to readers, and if the article is behind a paywall they could be invisible to the vast majority of the population, including many researchers.

We plan to automatically mine and openly annotate the biomedical literature with intelligent identifiers for data such as genes, species and many-dataset citations. ContentMine will extract the facts and Hypothesis will display them on the online document. Through this, we'll create an index of facts as open data that can be combined with manual annotations from the community of Hypothesis and ContentMine users. This development and linking of two existing early-stage services will lead to a powerful and rich user opportunity to examine facts in context and look for connections and correlations centred around identifiers.

In the spirit of openness, we're discussing the proposal on [forums.contentmine.org](#) and collaboratively drafting via [Google Docs](#). We're appreciative of any volunteers who would like to help!

You can get involved by:

- joining the [discussions thread](#) here
- Contributing to the [proposal draft](#)
- joining the [ContentMine github](#) community



ation to all knowledge. [Learn more](#)

Hypothesis announce

Contact | Search open facilities

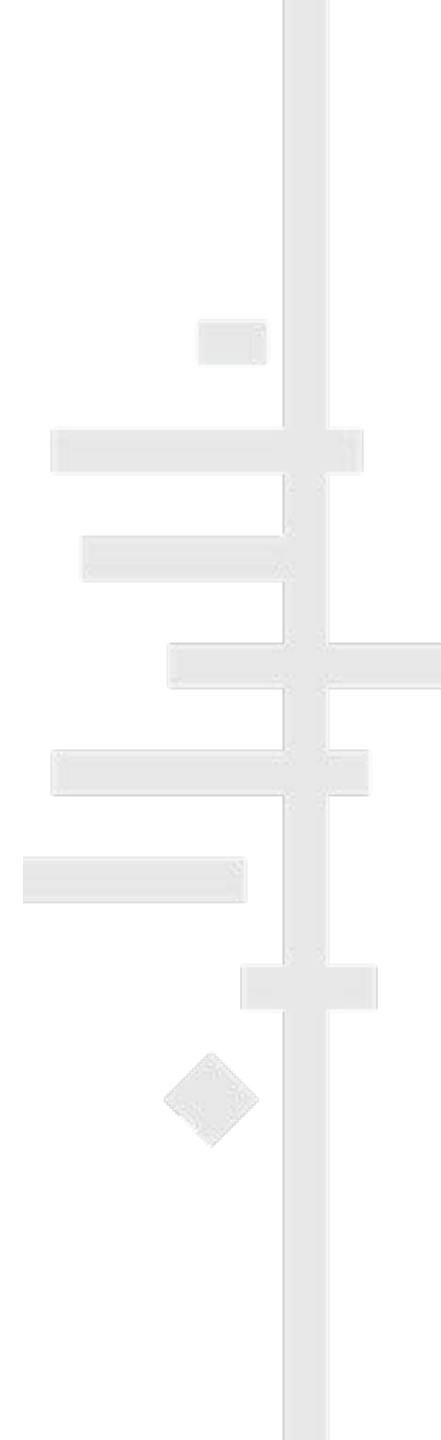


...refresh...



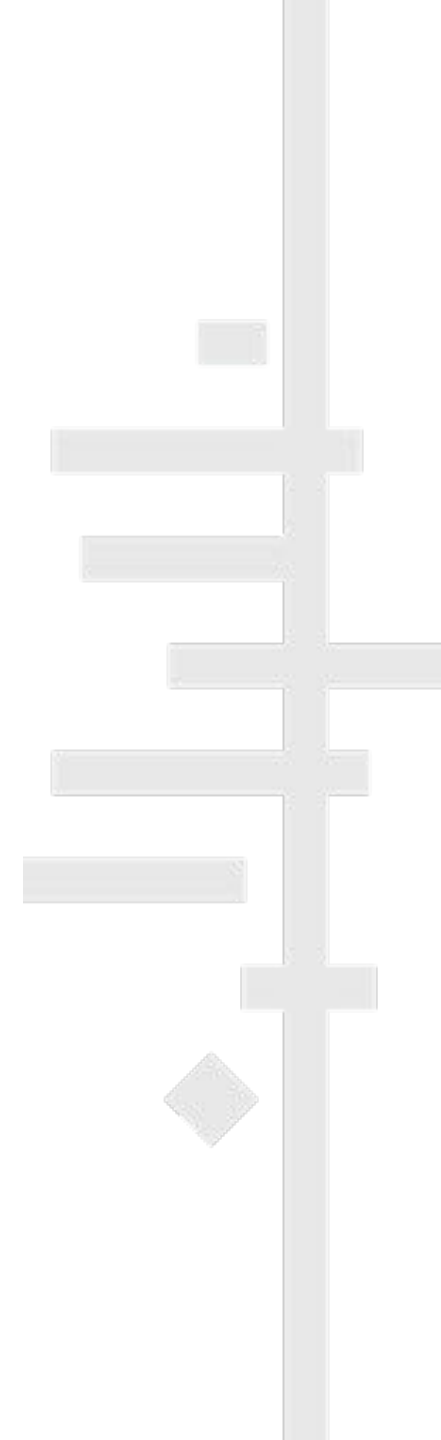
New authoring infrastructure

CRS Web, RevMan Web , Covidence, EPPI-R



Overarching goals

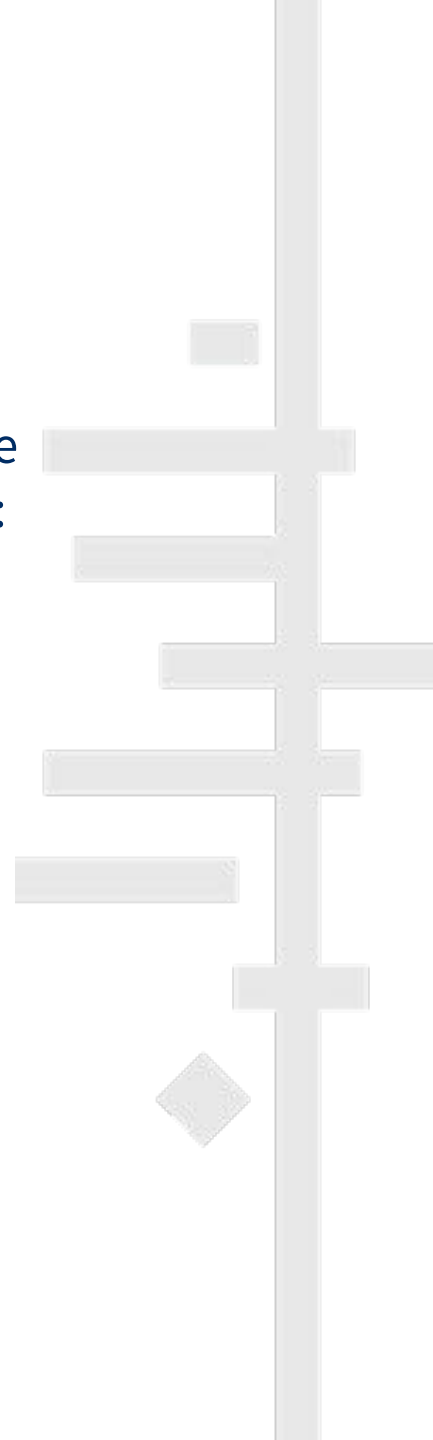
- Browser-based tools
- Connected by APIs
- Using common data exchange formats
- Connected by "the glue" (PICO metadata)
- Facilitating:
 - Data provenance, audit trails, and re-use/reproducibility
 - Increasing efficiency
 - Better Ux



CRS Web

The CRS is software for managing reports of trials. CRS Web is the browser-based version of the CRS desktop app. Key features are:


- Leverages the power of the CRS-D, the backend database of trials which links together all reports of trials and associated metadata.
- Provides a rich interface to allow easy discovery of all trials found by all review groups, making study identification for Cochrane review easier and faster and reducing duplication of effort.
- Automatically updates and alerts users when a trial's status changes.
- Integrated with RevMan Web, Covidence, EPPI, Cochrane Crowd, and other Cochrane projects.



CRS Web dashboard page



CRS Web search results page


Cochrane Register of Studies
Gordon Dooley [AR] | logout

Home
Search
Import
Tracking
CT.GOV
Journals
Record
Preferences
Error

Search history Clear Save Load ***

Combine checked lines with **AND** | OR | NOT

Select/deselect all

1	psoria*	3790		
2	arthr*	18001		
3	eczema	1391		
4	psoriatic arthropathy	2		

Record listing Setup Wrap Display Highlights Export

#	Title	Author	Year	Source
1	Achieving goal hemoglobin A1C in the stand...	Drake T // Hire D // ...	2013	Diabetes
2	Amineptine treatment of chronic catatonia: ...	Ungvari G // Gazdag...	2012	Internation
3	Augmenting ssris with an alpha4beta2nachr...	Ramey T	2012	Internation
4	The beneficial effect of metformin on beta-c...	Bi Y // Zhu D // Yang...	2013	Diabetes
5	Blisibimod, an inhibitor of B cell activating fa...	Furie RA // Scheinbe...	2012	Arthritis an...

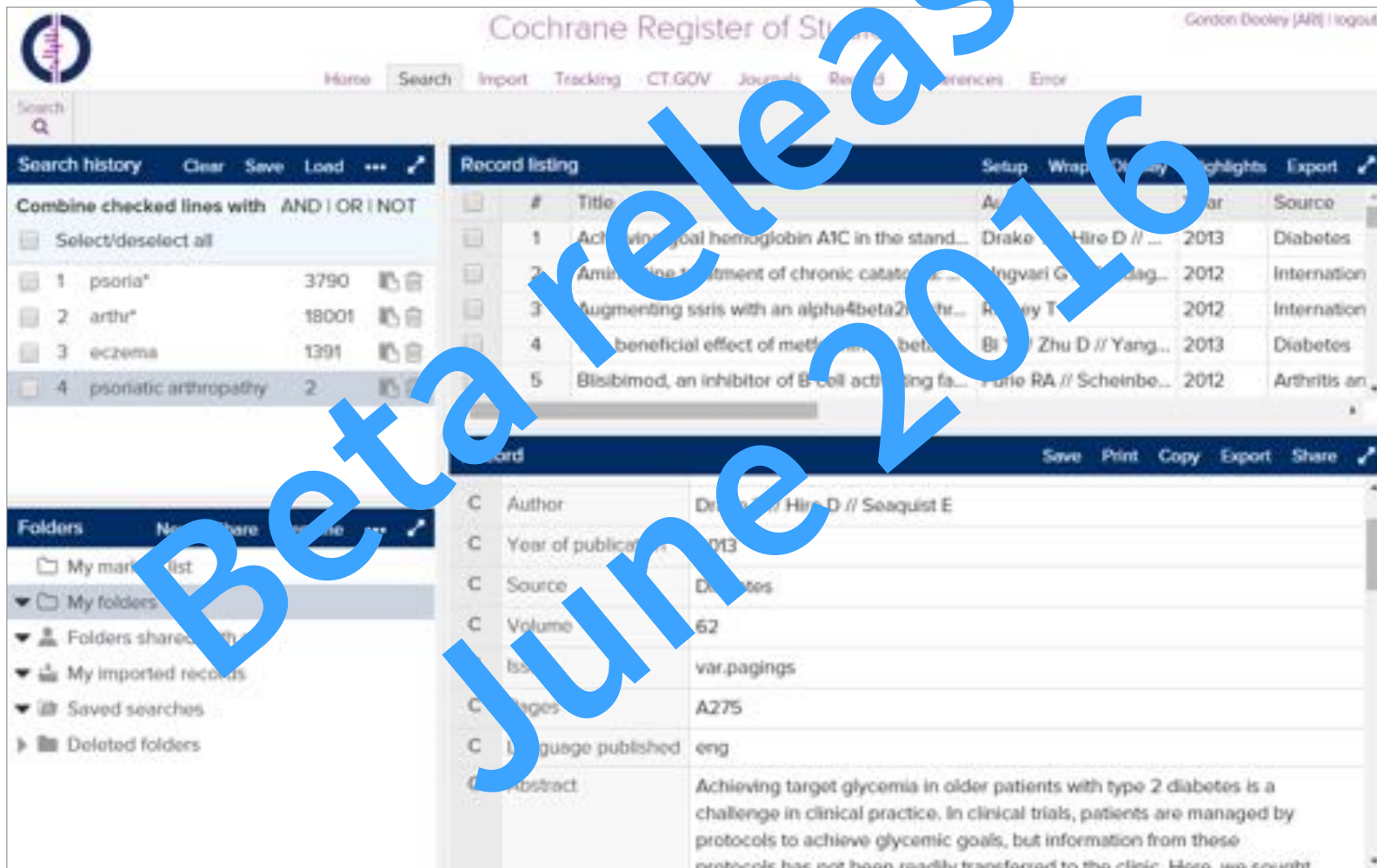
Folders New Share Rename ***

- My marked list
- My folders
- Folders shared with me
- My imported records
- Saved searches
- Deleted folders

Record Save Print Copy Export Share

C	Author	Drake T // Hire D // Seaquist E
C	Year of publication	2013
C	Source	Diabetes
C	Volume	62
C	Issue	var.pagings
C	Pages	A275
C	Language published	eng
C	Abstract	Achieving target glycemia in older patients with type 2 diabetes is a challenge in clinical practice. In clinical trials, patients are managed by protocols to achieve glycemic goals, but information from these protocols has not been readily transferred to the clinic. Here, we sought

CRS Web search results page



The screenshot displays the Cochrane Register of Studies (CRS) web interface. The page title is "Cochrane Register of Studies" and the user is logged in as "Gordon Dooley [AR] | logout". The navigation menu includes "Home", "Search", "Import", "Tracking", "CT.GOV", "Journals", "Reviews", "References", and "Error".

The search history section shows four searches:

Search	Count
1 psoria*	3790
2 arthr*	18001
3 eczema	1391
4 psoriatic arthropathy	2

The record listing table shows the following records:

#	Title	Author	Year	Source
1	Achieving target hemoglobin A1C in the stand...	Drake // Hire D // ...	2013	Diabetes
2	Aminoglycoside treatment of chronic catarrh...	Ingvald G // Saag...	2012	Internation
3	Augmenting ssris with an alpha4beta2 nitr...	Kealey T	2012	Internation
4	Beneficial effect of metformin on beta...	Bi // Zhu D // Yang...	2013	Diabetes
5	Blisibimod, an inhibitor of B-cell activating fa...	Furie RA // Scheinbe...	2012	Arthritis an...

The detailed record view for the first record shows the following information:

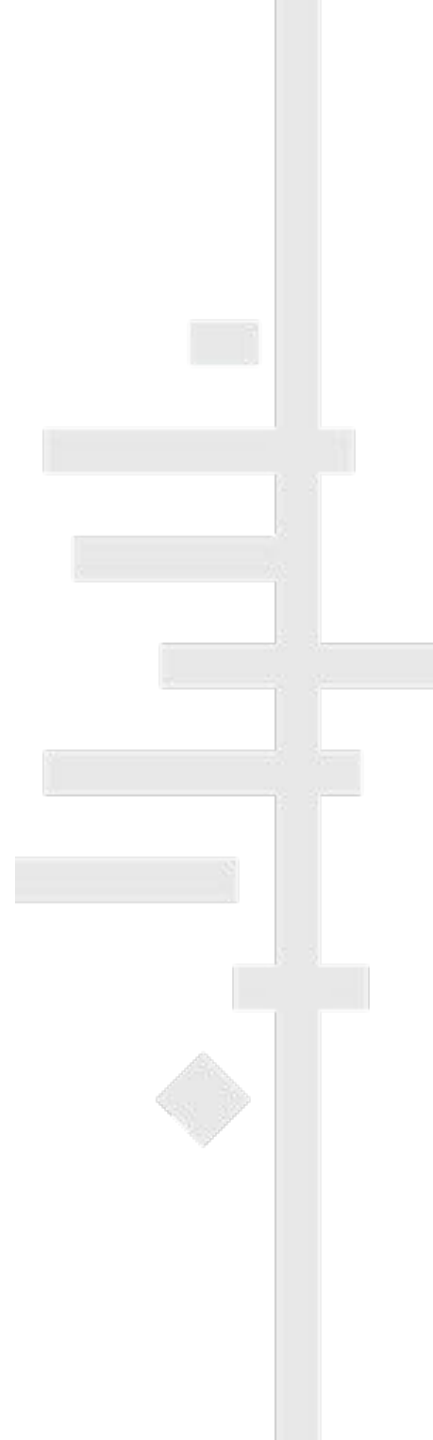
Field	Value
Author	Drake // Hire D // Seaquist E
Year of publication	2013
Source	Diabetes
Volume	62
Issue	var.pagings
Pages	A275
Language published	eng
Abstract	Achieving target glycemia in older patients with type 2 diabetes is a challenge in clinical practice. In clinical trials, patients are managed by protocols to achieve glycemic goals, but information from these protocols has not been readily transferred to the clinic. Here, we sought

RevMan Web

RevMan Web is a browser-based version of RevMan.

The primary objectives are to:

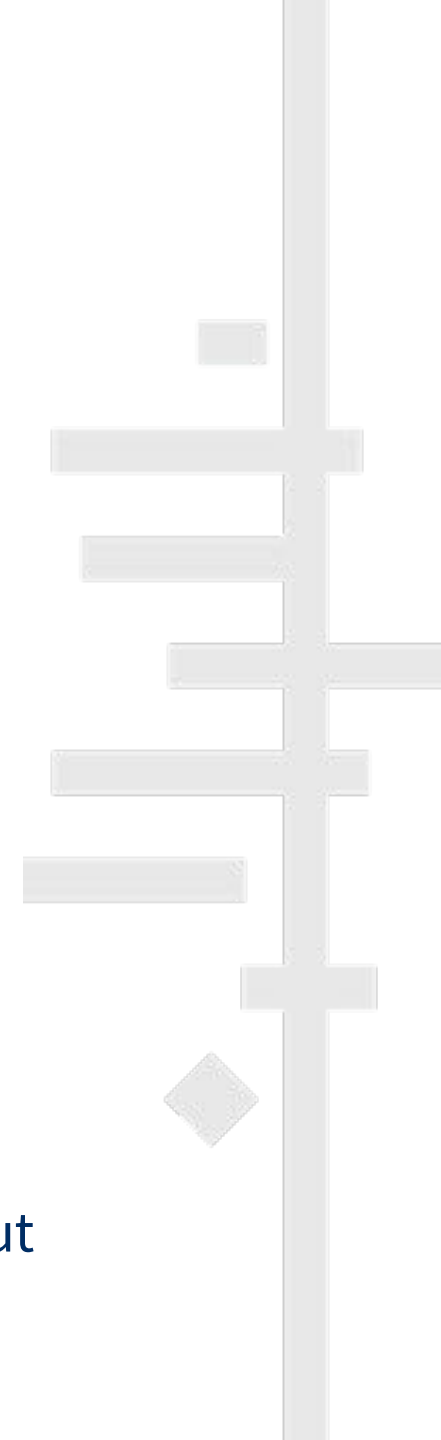
- Eliminate local installation by users.
- Link and integrate with other tools: Covidence and CRS Web.
- Improve and modernise the user interface.
- Enable Cochrane to quickly adapt review methods and new content.
- Facilitate better audit trails and provenance.



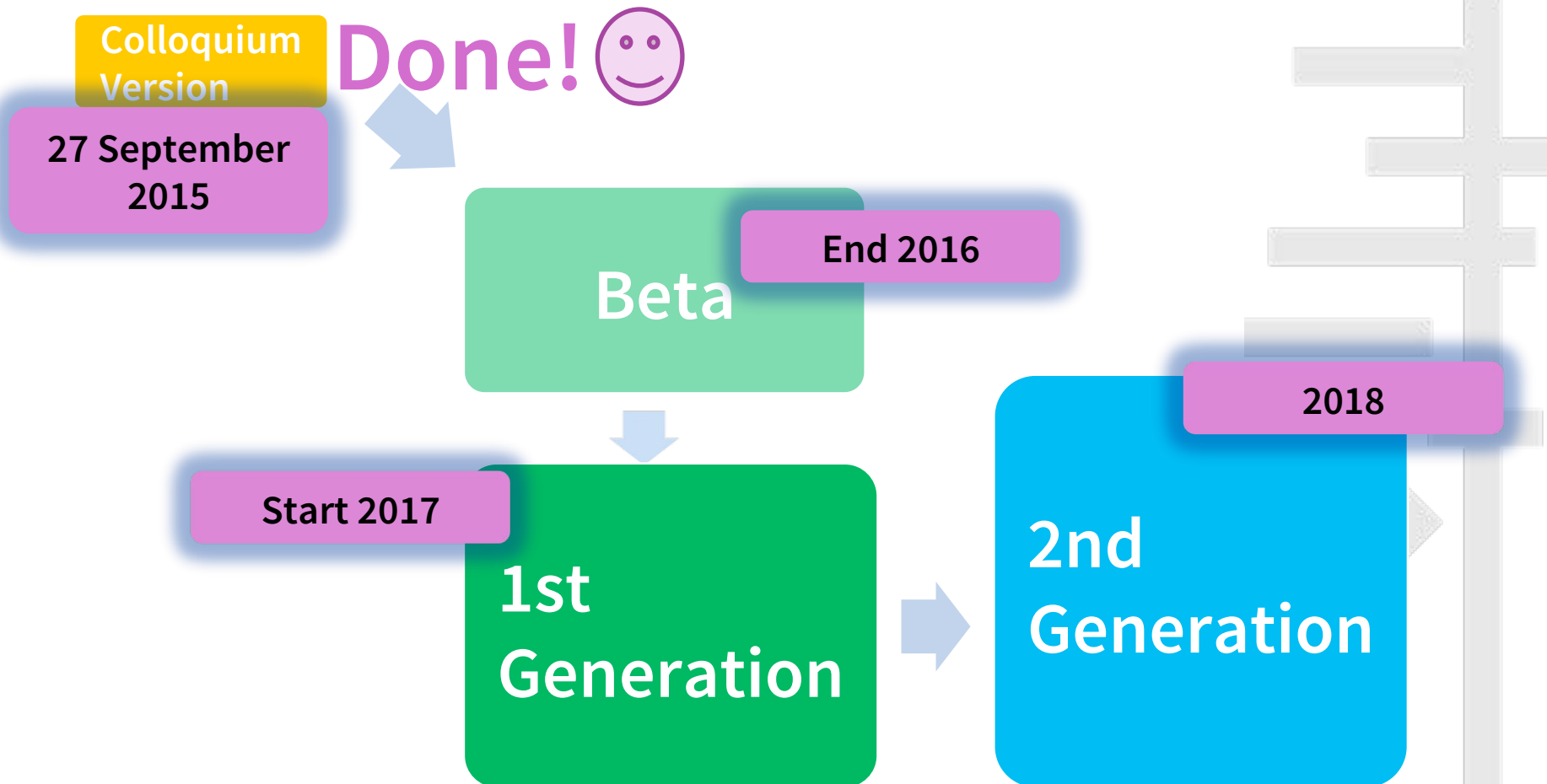
Requirements for RevMan Web

- Installation free
- Works offline
- Mobile/Tablet friendly
- Multi-user
- Tracks provenance
- Secure
- Modular
- Facilitates data consistency
- Fast/performant
- Supports internationalisation

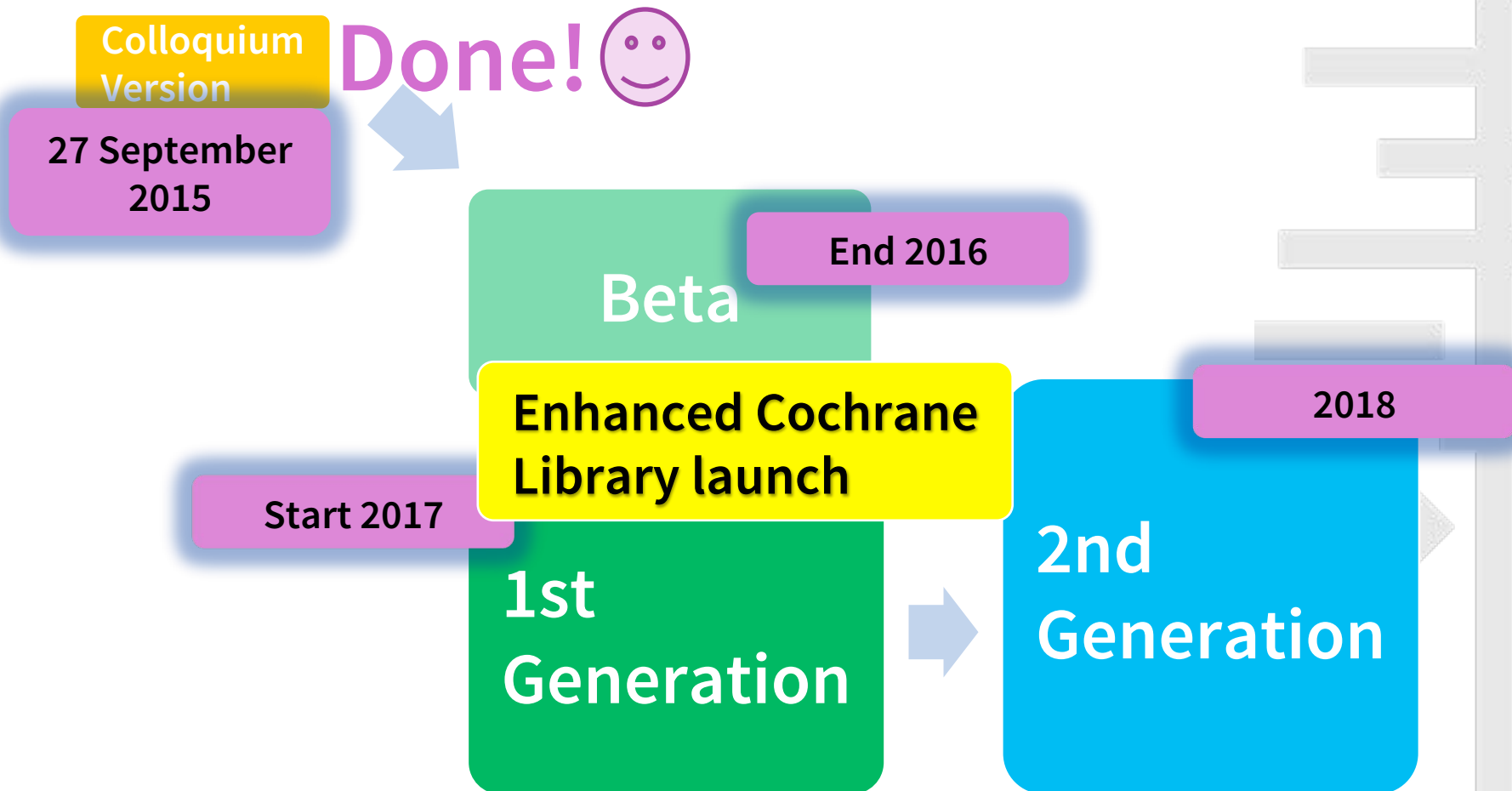
RevMan Web will co-exist with RevMan 5 during the rollout of the beta and 1st generation versions.



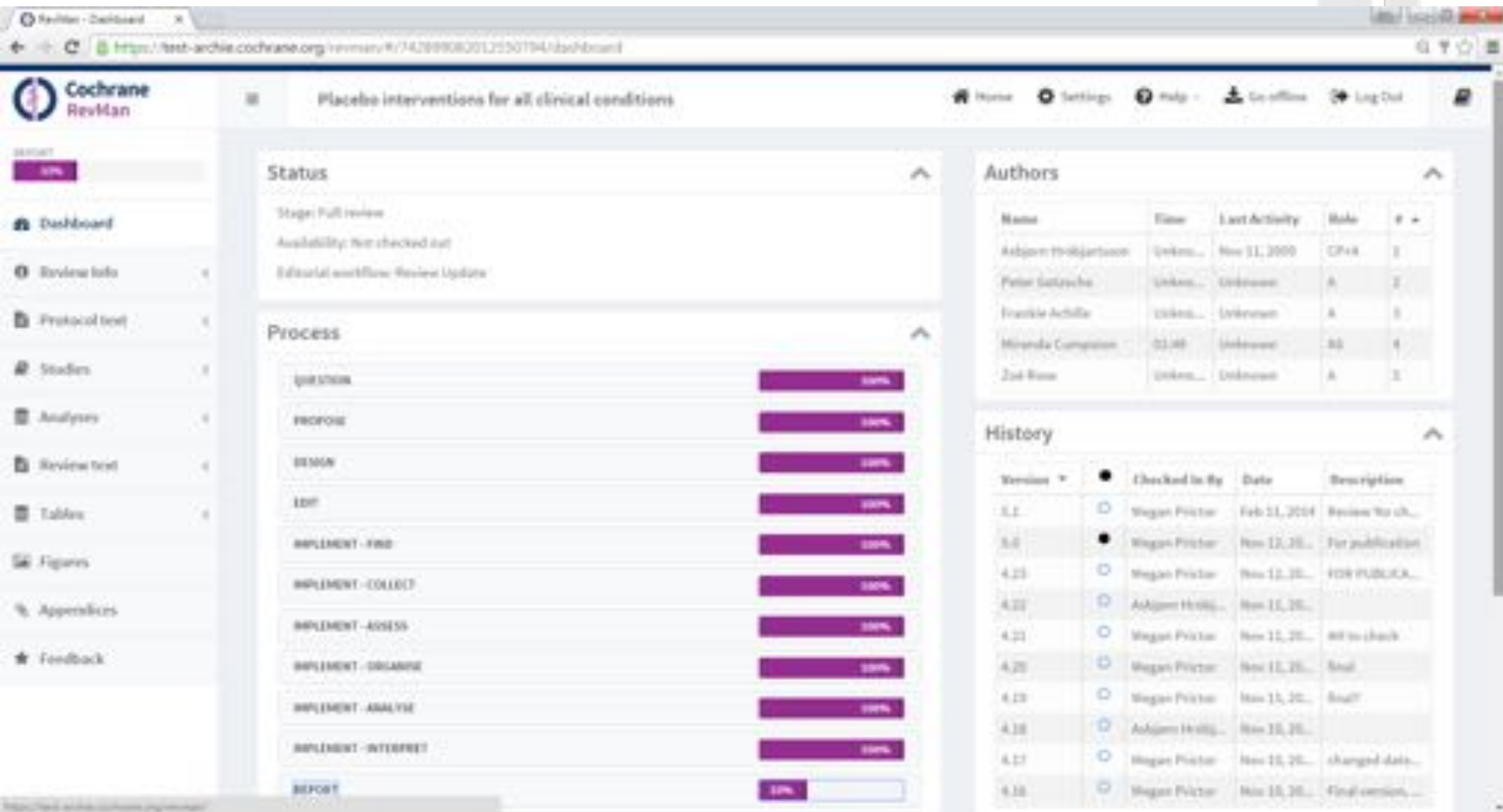
Expected Release Dates



Expected Release Dates



RevMan Web Review Dashboard



The screenshot shows the RevMan Web Review Dashboard for a review titled "Placebo interventions for all clinical conditions". The dashboard is divided into several sections:

- Status:** Shows the review stage as "Full review", availability as "Not checked out", and editorial workflow as "Review Update".
- Process:** A progress bar showing the completion status of various review stages. All stages from "QUESTION" to "INTERPRET" are at 100% completion. The "REPORT" stage is at 10% completion.
- Authors:** A table listing the authors and their roles.
- History:** A table showing the review's version history, including checked-in status, date, and description.

Stage	Progress
QUESTION	100%
PROPOSE	100%
DESIGN	100%
EDIT	100%
IMPLEMENT - FIND	100%
IMPLEMENT - COLLECT	100%
IMPLEMENT - ASSESS	100%
IMPLEMENT - ORGANISE	100%
IMPLEMENT - ANALYSE	100%
IMPLEMENT - INTERPRET	100%
REPORT	10%

Name	Title	Last Activity	Role	Count
Ashjorn Hróbjartsson	Unknown	Nov 11, 2010	CP+R	1
Peter Gøtzsche	Unknown	Unknown	A	2
Frankie Achille	Unknown	Unknown	A	0
Miranda Compton	01:40	Unknown	SA	1
Zof Riva	Unknown	Unknown	A	1

Version	Checked In By	Date	Description
3.1	Wegan Proctor	Feb 11, 2014	Review for up...
3.0	Wegan Proctor	Nov 12, 20...	For publication
4.23	Wegan Proctor	Nov 12, 20...	FOR PUBLICA...
4.22	Ashjorn Hróbj...	Nov 11, 20...	
4.21	Wegan Proctor	Nov 11, 20...	Not to check
4.20	Wegan Proctor	Nov 11, 20...	Snul
4.19	Wegan Proctor	Nov 11, 20...	Snul?
4.18	Ashjorn Hróbj...	Nov 10, 20...	
4.17	Wegan Proctor	Nov 10, 20...	changed date...
4.16	Wegan Proctor	Nov 10, 20...	Final version...

RevMan Web

Review - Data

https://test-archie.cochrane.org/revman/4/742898082012150734/analysisData

Cochrane RevMan

Placebo interventions for all clinical conditions

Home Settings Help Go offline Log Out

1 Main analysis: clinical conditions investigated in three trials or more

Outcome or Subgroup	Studies	Participants	Statistical Method	Effect Estimate
1.1 Binary outcomes	0		RR - M-H, Ran...	Subtotals only
1.2 Continuous outcomes	119		MD - IV, Rand...	Subtotals only
Subgroup	Studies	Participants	Statistical Method	Effect Estimate
1.2.1 Pain (VAS, ordinal scales, McGill score,...	68	4124	MD - IV, Random, 95%	-0.28 [-0.26, -0.31]
1.2.2 Insomnia (sleep onset latency in min,...	6	364	MD - IV, Random, 95%	-0.18 [-0.30, 0.12]
1.2.3 Hypertension (diastolic, mm Hg, also...	11	308	MD - IV, Random, 95%	-0.17 [-0.46, 0.11]
1.2.4 Restless legs, Rhodes Inventory of Na...	7	402	MD - IV, Random, 95%	-0.25 [-0.48, -0.04]
1.2.5 Smoking (cigarettes per day, self-rep...	9	703	MD - IV, Random, 95%	-0.13 [-0.28, 0.11]
1.2.6 Phobia (Fear of snakes and spiders; an...	1	57	MD - IV, Random, 95%	-0.63 [-1.17, -0.08]

2 Main analysis: overall pooled analyses

3 Main analysis: patient-reported or observer-reported outcomes

4 Supplementary analysis: adverse effects

5 Effect modification subgroup analysis: type of outcomes

6 Effect modification subgroup analysis: the number of the trials

Context

Standards

Tips & Tutorials

Notes

RevMan Web

Placeholder for a screenshot of the RevMan Web interface. The interface shows a navigation menu on the left, a main content area with a table of outcomes, and a right-hand sidebar with 'Context', 'Standards', and 'Tips & Tutorials' sections.

Outcome or Subgroup	Participants	Statistical Model	Effect Size	
1.1 Binary outcomes		RR - M-H, Random, 95%		
1.2 Continuous outcomes		MD - M, Rand., 95%		
Subgroup	Studies	Participants	Statistical Model	Effect Size
1.2.1 Pain (VAS, endpoint: total VAS score)	6	4104	MD - M, Random, 95%	1.28 [-0.24, 0.13]
1.2.2 Insomnia (sleep quality) (0-100 mm...)	6	364	MD - M, Random, 95%	0.19 [-0.30, 0.12]
1.2.3 Pain (VAS, endpoint: total VAS score)	33	308	MD - M, Random, 95%	-0.17 [-0.46, 0.11]
1.2.4 Pain (VAS, endpoint: total VAS score)	7	402	MD - M, Random, 95%	-0.25 [-0.48, -0.04]
1.2.5 Pain (VAS, endpoint: total VAS score)	3		MD - M, Random, 95%	-0.13 [-0.28, 0.11]
1.2.6 Pain (VAS, endpoint: total VAS score)	3		MD - M, Random, 95%	-0.63 [-1.17, -0.08]

Beta release late 2016

Covidence streamlines your systematic review projects

[Play video](#)

Sign in to Covidence

EMAIL

PASSWORD

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EPPi-Reviewer 4 is the next stage of development of our software for all types of literature review, including systematic reviews, meta-analyses, "rapid" reviews and needs-analysis reviews.

EPPi-Reviewer 4 was launched in October 2018. It has been used by many hundreds of reviewers across hundreds of projects, covering a large range of diverse topics and review sizes, some containing over 1,000,000 items.

Please see the [FAQ/FAQs](#) page for more details.

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EPPi-Reviewer 4 is developed and maintained by the EPPi-Centre at the Social Science Research Unit of the UCL Institute of Education, University of London, UK. To find out more about the work of the EPPi-Centre as well as information about how to do systematic reviews, please visit our website [http://ie.ucl.ac.uk](#).



Access to EPPi-Reviewer 4 can be had for an **ADP** or **ESP** per month!

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News



We are pleased to announce that EPPi-Reviewer is part of the [Cochrane Evidence](#) information infrastructure. For further information [click here](#).



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News

Cochrane

We are pleased to announce that EPPI-Reviewer 4 is part of the forthcoming Cochrane Review Information Infrastructure. For further information visit [here](#).

EPPI-Centre Launch

SYSTEMATIC REVIEWS

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EPPI-Reviewer 4 was last updated on May 26, 2025. Version 4.0.0.0 (alpha). The user manual was last updated on May 26, 2025. (Beta Version)



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Better health.

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Covidence

Date created

15 March 2016

Format

N/A

Useful for...

Authors

Editors

Trainers

Trials Search Co-ordinators

Cochrane Group staff

Topics

Description

Covidence is one of Cochrane's recommended tools to support you in some of the most labour-intensive stages of your systematic review. Covidence allows your team to upload search results, screen abstracts and full text, complete data collection, conduct risk of bias assessment, resolve disagreements and export data into RevMan or Excel. We think you'll find it easy to use and genuinely helpful in easing the workload. Covidence is free to use for all Cochrane authors, and you can log in using your Archie account.

Click here to use Covidence

Support is available to help you get started with Covidence:

- [Training](#): A series of webinars is running during 2016, including regular introductory sessions as well as forum discussions for users to ask questions and learn some more in-depth features. Check our [workshops schedule](#) for [online webinars](#), or see a [recording of a past webinar](#).



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Better health.

Search...



Learning resources

Pathways

Workshops and courses

Handbooks

About

Log in

EPPi-Reviewer

Date created

15 March 2016

Format

N/A

Useful for...

Authors
Editors
Trainers
Trials Search Co-ordinators
Cochrane Group staff

Topics

Description

EPPi-Reviewer 4, developed by the EPPi Centre at University College London, is a recommended web-based tool for Cochrane authors to support the development of your review from study screening through data collection, analysis and synthesis. Note that EPPi-Reviewer is suitable to support complex reviews including narrative and qualitative synthesis. Authors working on more straightforward reviews may prefer to try Covidencex, Cochrane's main recommended screening and data collection tool.

EPPi-Reviewer is free to use for Cochrane authors, and you can log in using your Archie account details. Full details on how to log into EPPi-Reviewer are provided below.

[Click here to use EPPi-Reviewer](#)

EPPi-Reviewer can help your team manage all stages of the process from bibliographic management, screening, coding and right through to synthesis, including meta-analysis, narrative and qualitative synthesis, which can then be exported for use in RevMan to complete your review for publication. Recent additions to the software include text

Target 5, Goal 1 – 2016 Strategy Targets

5. EFFICIENT PRODUCTION: New authoring infrastructure
 We will revolutionise our authoring infrastructure by completing the move of Review and the Cochrane Register of Studies online with the release of beta versions into general use, and ensuring that 80% of reviews moving beyond the pre-proof publication stage use Cochrane or GPP Reviewer Tools October 2016.

Outcomes	Indicators of success delivered by the Cochrane Executive Team	Indicators of success delivered by Cochrane Groups	Delivery deadline
This target will move Review and the CRD online, which will enable further integration with Cochrane, Transform tools, GPP Reviewer and other known-based tools, ensuring a user experience for users who is friendly and efficient review production in Cochrane.	A beta version plan for Review Web has been approved and Review Web is being beta tested in general use	Cochrane Groups and review production teams are beta testing Review Web	Dec 2016
	A plan has been agreed for the full transition to Review Web in 2017, and phase-out of the Review Editor version	Groups have committed to the Review Web transition plan	Dec 2016
Cochrane has invested substantially in Cochrane Reviewer Tools, the primary, default tool to support study screening and data extraction. The use of Cochrane or GPP Reviewer in the workflow will give us great efficiency and transparency in our practice. Cochrane will function as the primary data extraction tool for Cochrane authors, streamlining the production of standard intervention reviews.	CRD Web is live and a plan to phase out the desktop version has been agreed	Groups beta test and welcome feedback with Review Web and CRD Web functionality. Managing Editors and Information Specialists attend training sessions. CRDs assist with migration.	CRD Web live and in use by June 2016
	Cochrane (default) or GPP Reviewer (if complex review methods are in use) or more than 80% of new reviews from October 2016	CRDs are being trained in using Cochrane and/or GPP Reviewer for their authors and contributors. CRDs have begun to use GPP tools – at least 80% of new reviews from January 2017	Dec 2016

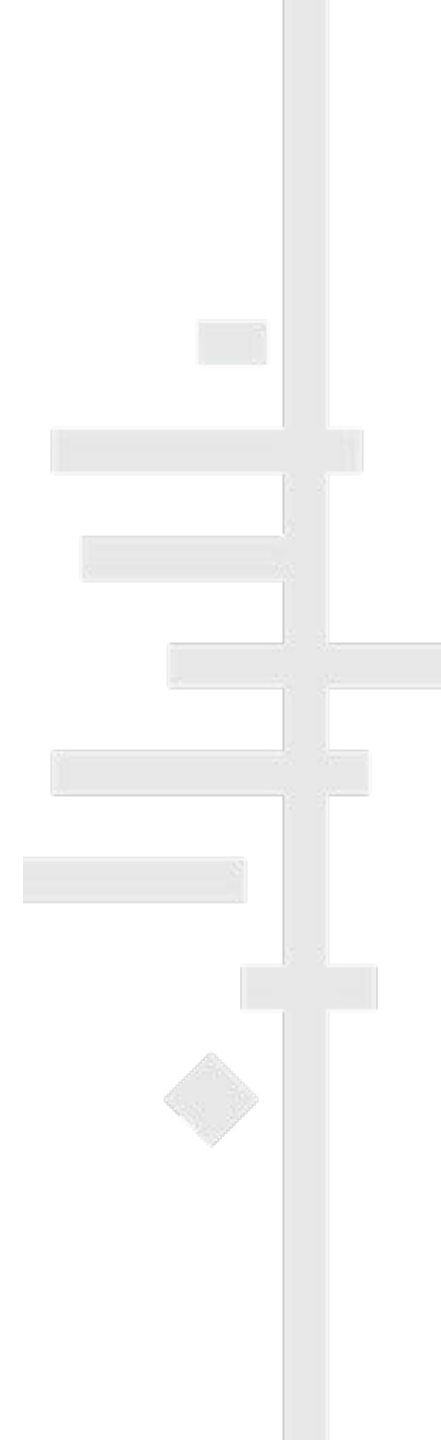
For Details and updates see:

...nearly there...



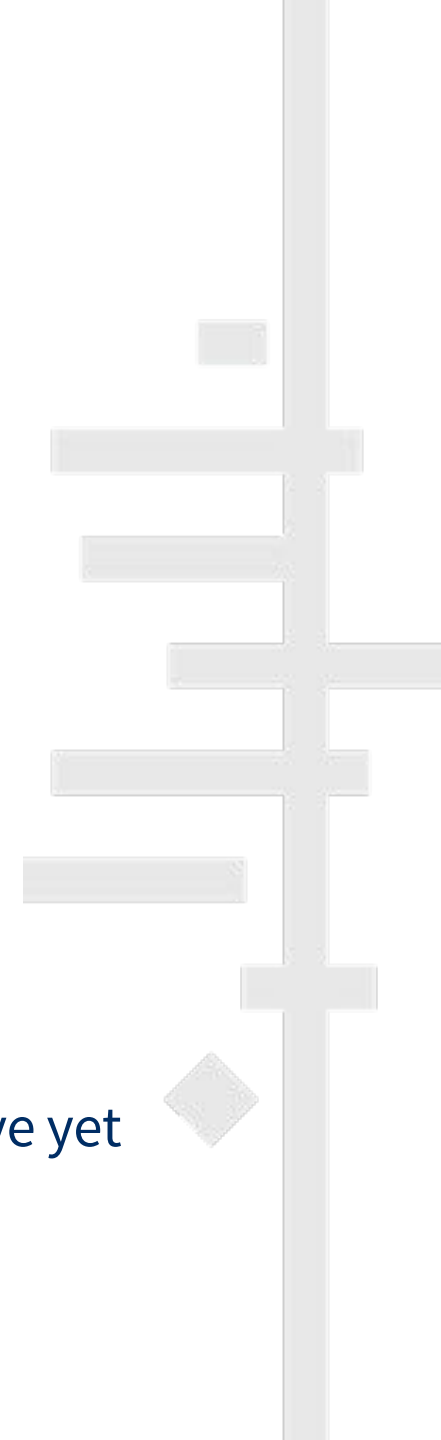
The wider context

Cochrane remaining competitive in an expanding marketplace of evidence



"Next generation" Cochrane?

- Big data
- “Diverse” data
 - IPD (Individual Patient Data)
 - ~omics
 - Device, systems
 - Data from different study designs
- Activity to date:
 - Meetings
 - Various conversations happening but nothing definitive yet
 - Discussions mainly what role Cochrane should play
 - Ida Sim Cochrane lecture in Vienna



"Next generation" Cochrane

- How can we move towards...
 - “living” systematic reviews
 - and dynamic curation of evidence in real-time...that can incorporate methods and data from "diverse" sources?
- Wellcome/IoM/Harvard MRCT project
 - Project to build a clinical trial data sharing platform
 - Will include both aggregate/summary data and IPD
 - Analytical tools, mechanisms for de-identification, privacy
 - Meeting next week in London at Wellcome
- OpenTrials
- Cochrane has a role to play (lead, partner, other options?)

IBM Watson Health Cloud

IBM CloudPartner | Standard SaaS | Fully Scalable



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Solutions

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What's around the corner

Episode 2

Prescription: Watson

How healthcare can benefit from Watson's unique capabilities



THE IDEA



APPLICATIONS



LABS



MORE STORIES

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"The Yelp of medicine is here" :/

iDINE Your own information that really helps

Medications Current Drugs Depression Tool Search Menu

Find what works for depression

Try searching for a medication or condition

...makes it easier to understand prescription drug side effects
OPRAH Magazine

...The Yelp of medicine is here
TIME

...is addressing a notable information gap in health care for consumers and providers
New York Times

"The Yelp of medicine is here" :/

Take it easy to prevent nausea. Start with a low dose.

Hasn't been working & longer time to become active.

I have been using Xanax & it has helped me with my anxiety.

Community

People who've been there

More than 100,000 people sharing their medication experience and advice

[Share your experience](#)

Reviews

Is it worth it?

People-powered ratings show you which medications work best and have the fewest side effects.

[Share your experience](#)

1059 people Rated Xanax

Is Xanax worth it overall?

Worth it Not sure Nope

How well does Xanax work for you?

Worked well Somewhat Didn't work

Is Xanax a hassle?

"The Yelp of medicine is here" :/

The screenshot displays the iodine.com website interface, which is designed for comparing medications. At the top, there is a navigation bar with the URL 'www.iodine.com/compare'. Below this, the main content is organized into several sections:

- Compare Medications by letter:** A grid of buttons for each letter of the alphabet (A-Z) to filter medications.
- Popular comparisons:** A section titled 'Information from medical experts, and reviews from people like you' featuring several comparison boxes:
 - Pain and inflammation: Ibuprofen vs. Tylenol vs. Naproxen
 - Different kinds of antidepressants: Cymbalta vs. Prozac vs. Wellbutrin
 - Heartburn and GERD: Prilosec vs. Nexium vs. Zantac
 - Statins for high cholesterol: Crestor vs. Lipitor vs. Zocor
 - Prescription vs. over-the-counter sleep meds: Ambien vs. Unisom
 - Anti-anxiety medications: Xanax vs. Valium vs. Klonopin
- Alternatives to popular medications:** A section with buttons for finding alternatives to Zoloft, Claritin, Ambien, and Metformin.
- Compare ratings and reviews:** A detailed comparison of Imodium and Pepto-Bismol, showing their respective ratings and user reviews.
- Compare side effects:** A comparison of prescription sleep medications (Ambien, Lunesta, Sonata) with a table of side effects.

"The Yelp of medicine is here" :/

www.lodine.com/compare/ibuprofen-vs-tylenol-vs-naproxen

Reviews on lodine

Everyone	Men	Women	
All ages	18-34	35-54	55+

Ibuprofen

88% of people say it's worth it

49% say it works well

3% say it's a huge hassle

[Review Ibuprofen](#)

114 reviews

Tylenol

78% of people say it's worth it

57% say it works well

2% say it's a huge hassle

[Review Tylenol](#)

100 reviews

Naproxen

78% of people say it's worth it

43% say it works well

4% say it's a huge hassle

[Review Naproxen](#)

100 reviews

Side effects

We haven't found good research about how common Ibuprofen side effects are.

[FDA side effect reports for Ibuprofen](#)

We haven't found good research about how common Tylenol side effects are.

[FDA side effect reports for Tylenol](#)

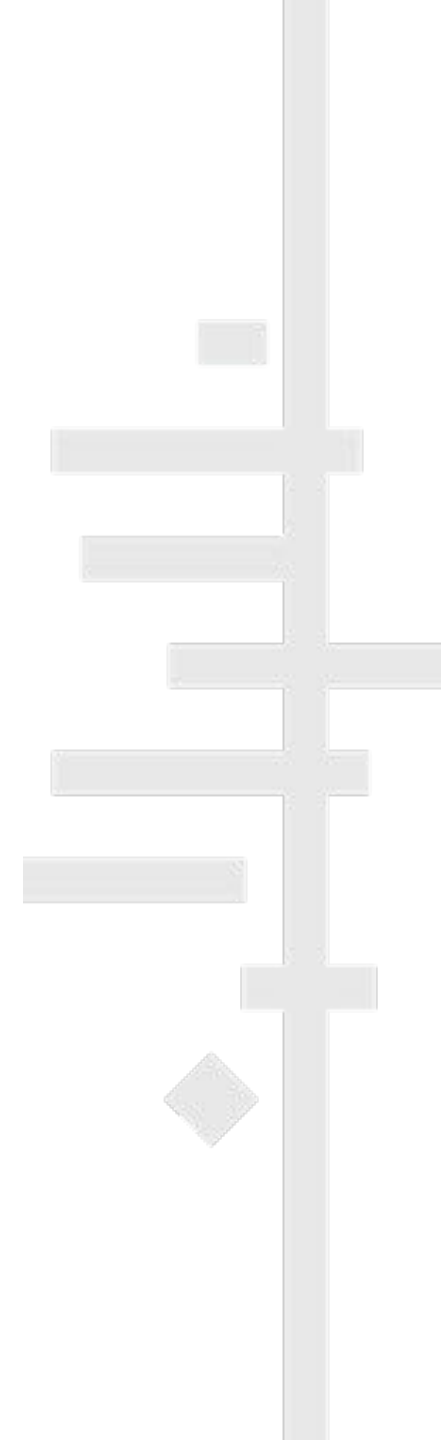
The FDA package insert for Naproxen doesn't say how often people felt side effects in clinical trials.

[More about Naproxen side effects](#)

Postscript

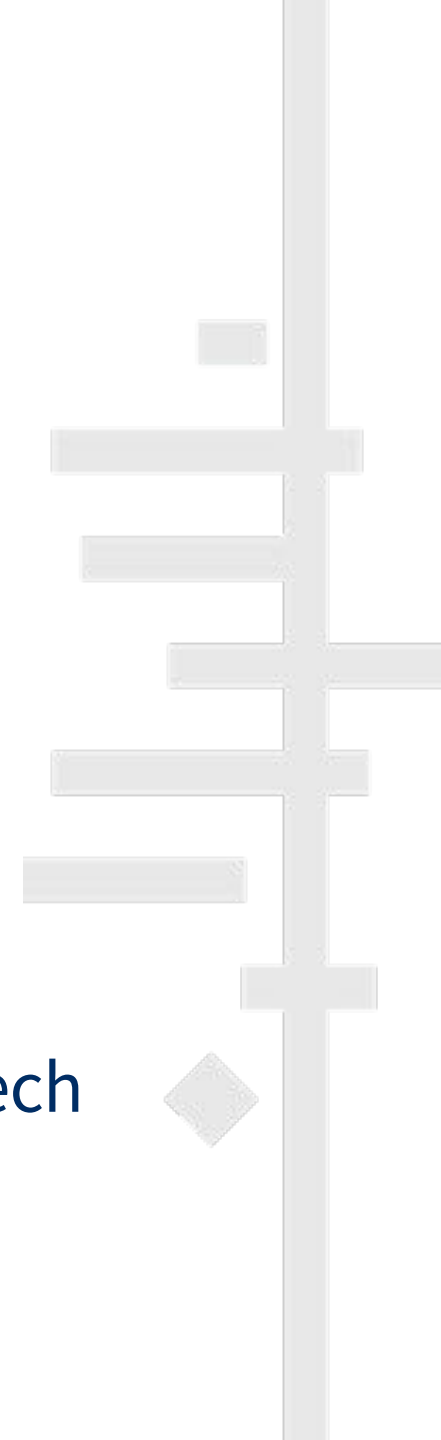
Impact: Cochrane and NICE

Engagement and collaboration



Cochrane and NICE

- Talk at NICE's Joint Information Day last week
- Several meetings to date on collaboration between NICE's linked data work and Cochrane's
- *HENCE Forward* EU bid
- Ongoing discussions via groups like #GINTech and #CochraneTech



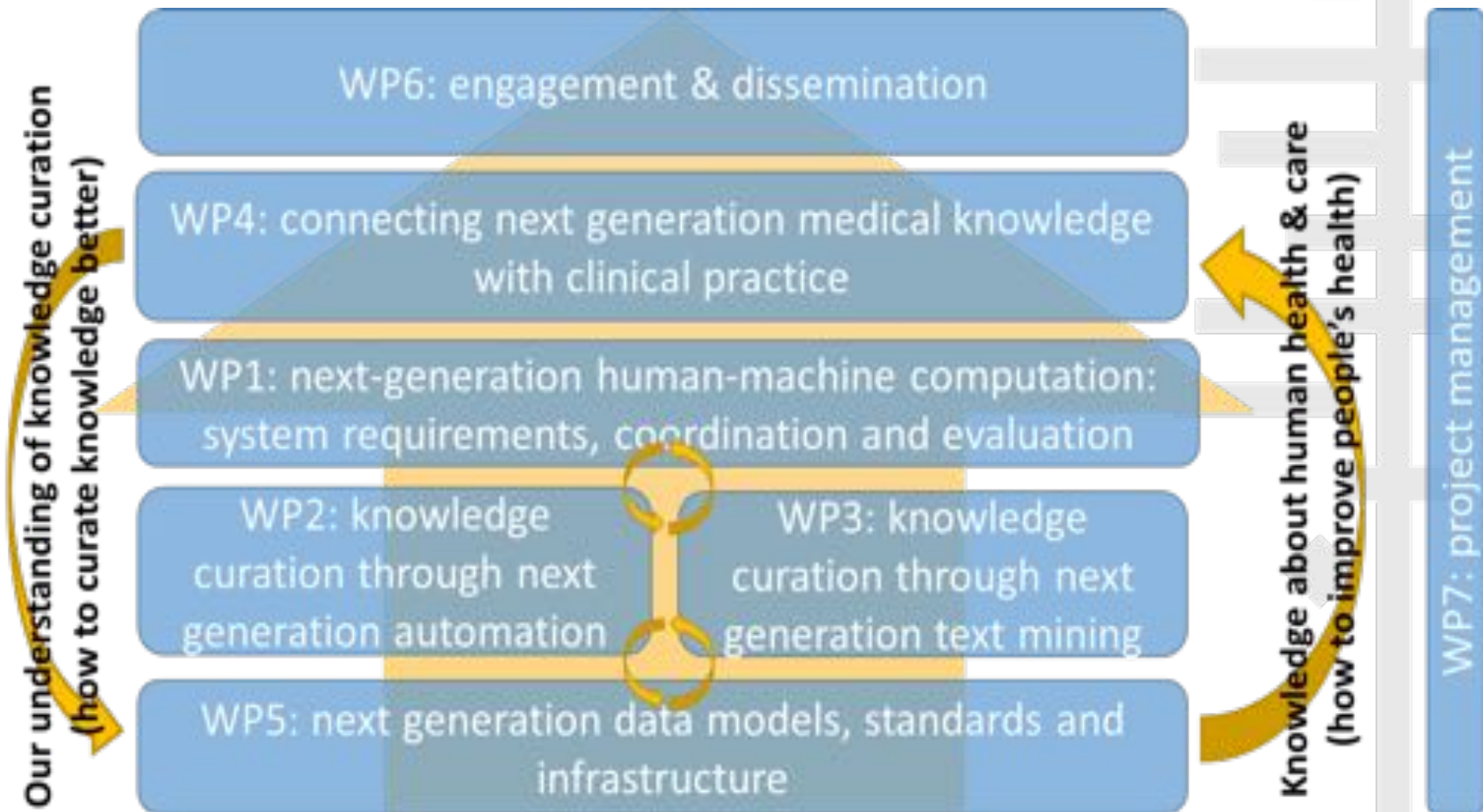
HENCE Forward (EU bid)

Main concepts are:

- We need ALL research to be described using standard schema in order for it to be useful for decision-making (e.g. The PICO ontology)
- The task of doing this at scale exceeds human (there's too much work) and machine (too much judgement needed) capacity
- We therefore create an infrastructure which automates as much as possible, but utilises human input where needed

Partners cover evidence production, evidence utilisation, and technology R&D and implementation

HENCE Forward EU bid



Summary

- People + Process + Technology are converging in new and innovative ways to help us further our mission
- We are ramping up the machines, platforms, and structured, linked data (tech)
- Change management: we are asking for you all (people) to adapt (process)
- Helps Cochrane to scale
- We can produce more high-quality evidence for health care decision making
- Tackle tomorrow's challenges so we remain competitive and relevant



Thank you

