

The COVID-NMA project

*Building and maintaining an online living platform for
COVID-19 studies*

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*Cochrane learning live webinar
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Acknowledgements: Isabelle Boutron & the COVID-NMA consortium

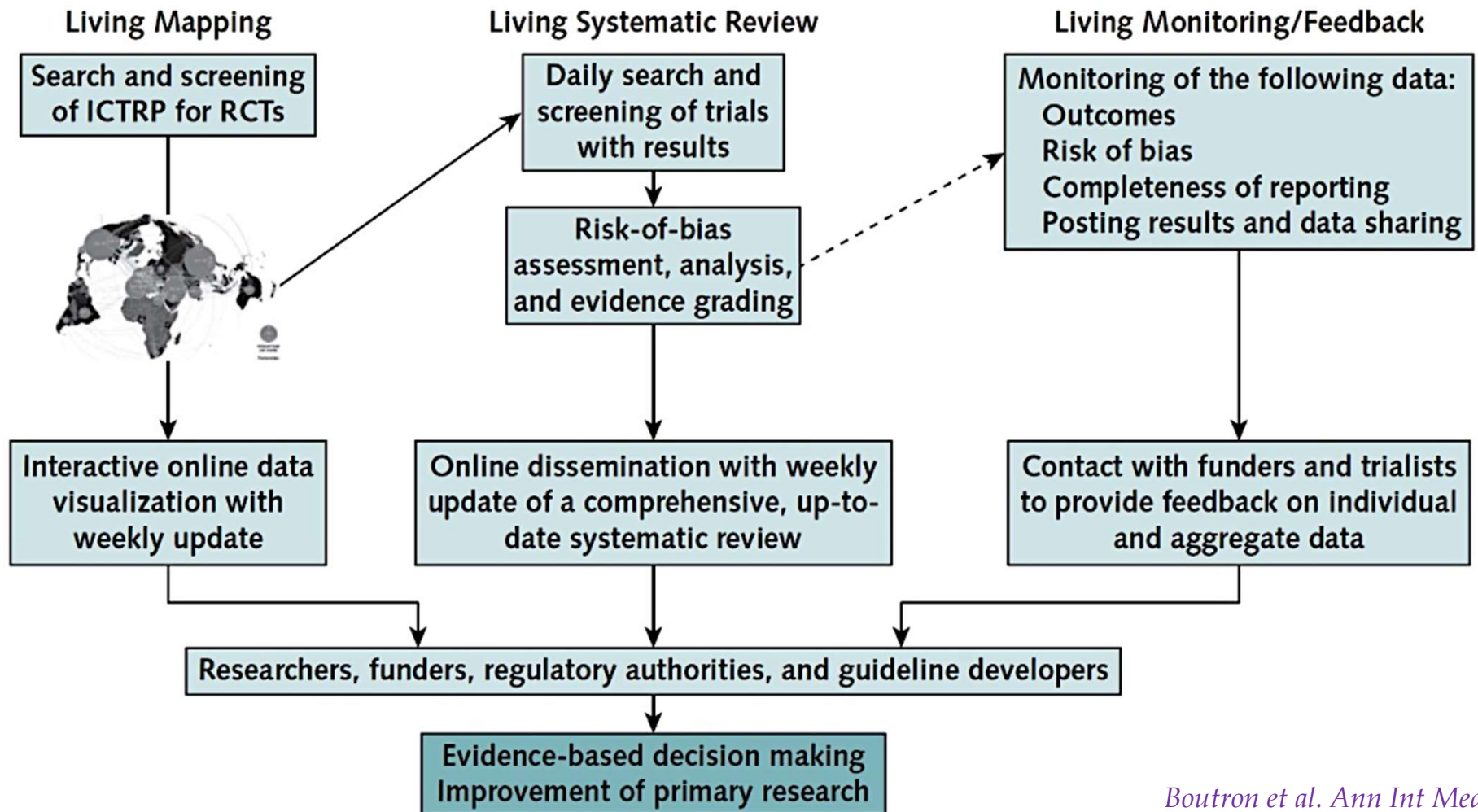
Background

- Clinicians and guideline developers urgently need up-to-date and high-quality evidence to inform their decisions
- More than 4000 randomized controlled trials (RCTs) registered
- Synthesis of all the evidence necessary to guide evidence-based and timely decisions
- Existing evidence synthesis approaches are limited particularly in the context of a pandemic
 - Important delay between evidence generation, evidence synthesis and evidence dissemination

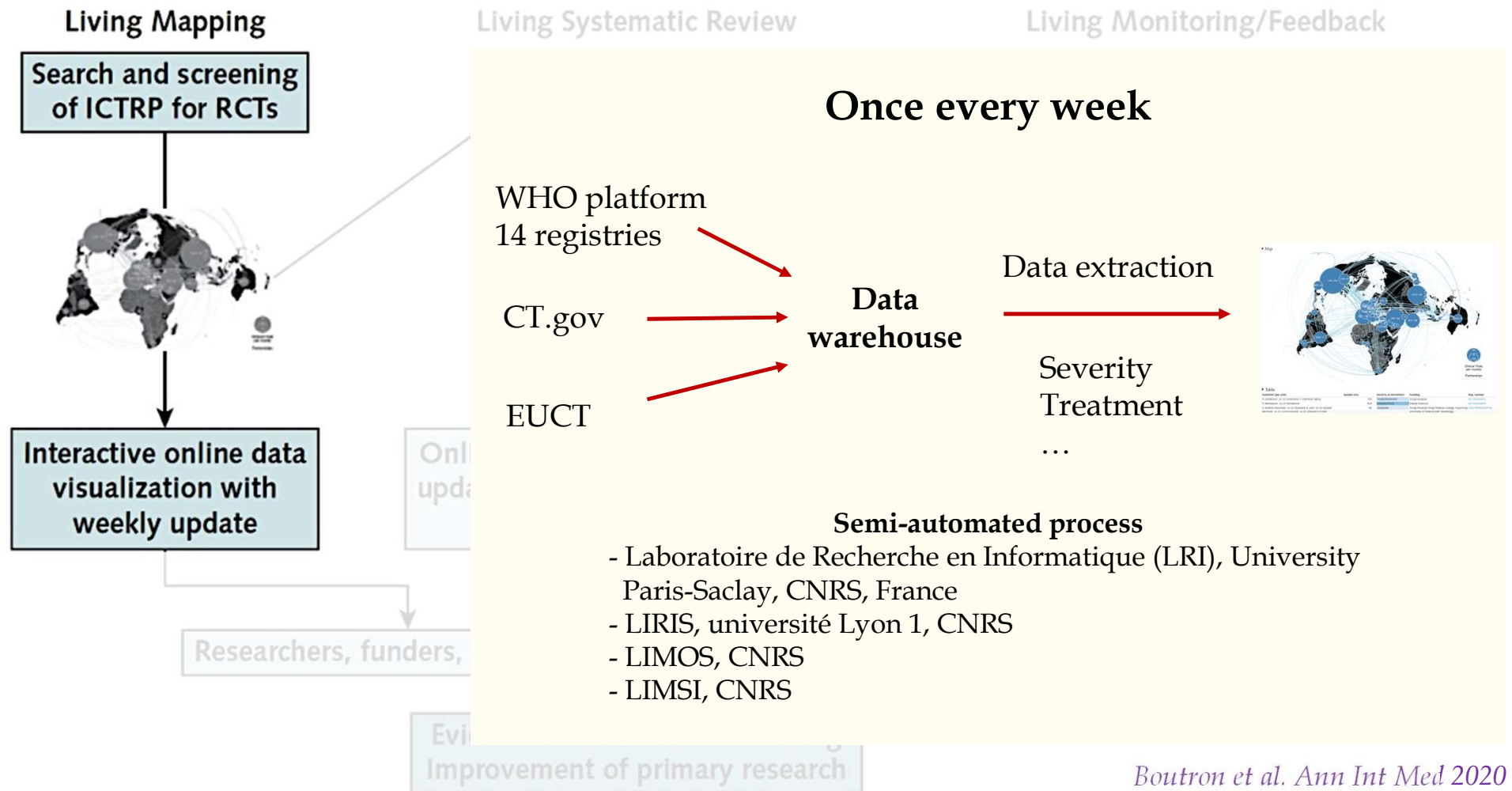
Objectives

- To develop a new evidence synthesis model for bridging the gap between
 - Evidence generation
 - Evidence synthesis
 - Decision making
- To make our findings and outputs quickly available to all stakeholders through a dedicated website
- Scope
 - Therapeutic interventions
 - Preventive interventions
 - Vaccines
- Proof-of-concept model to be used for other conditions afterwards

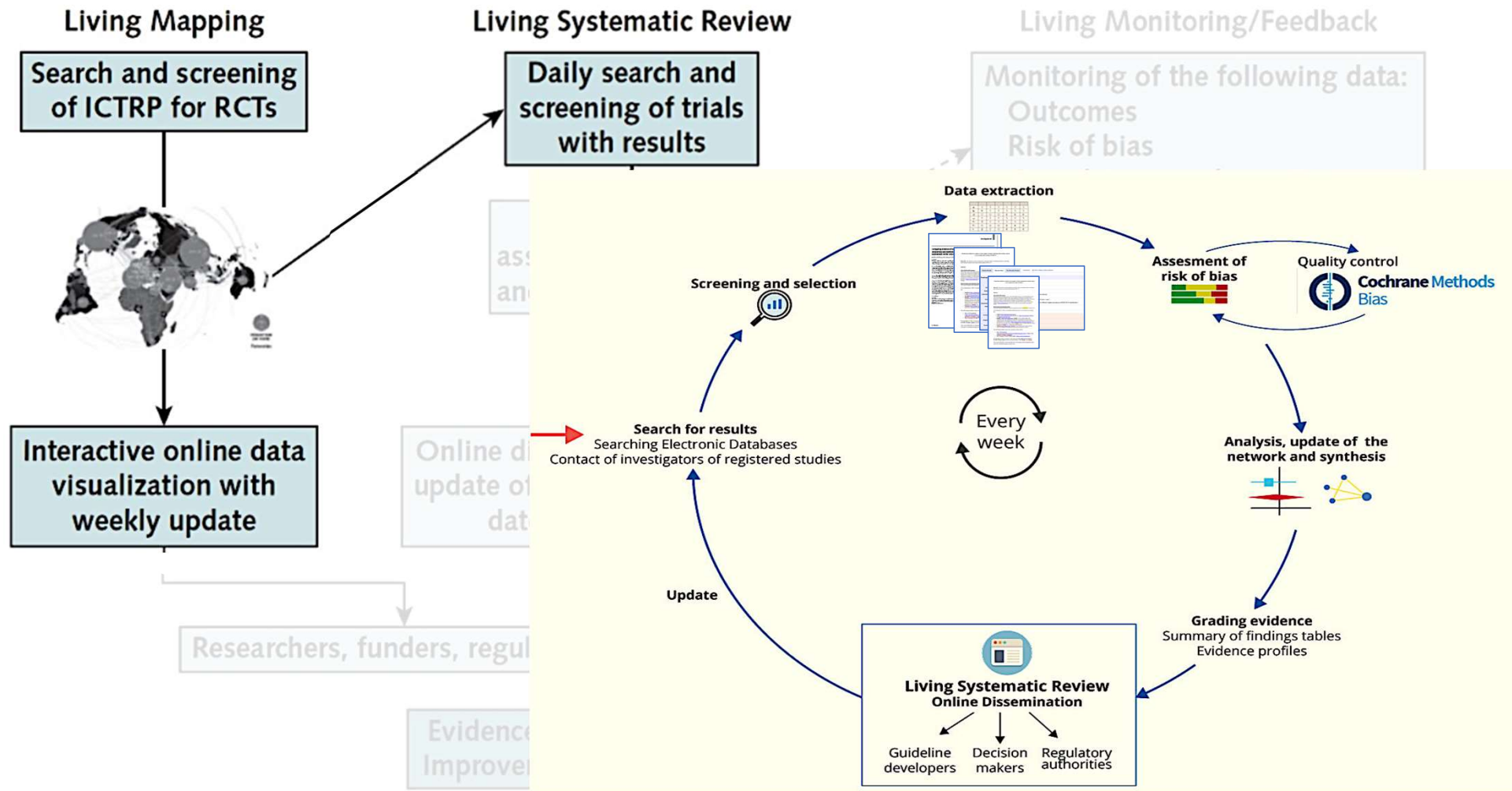
The COVID-NMA model



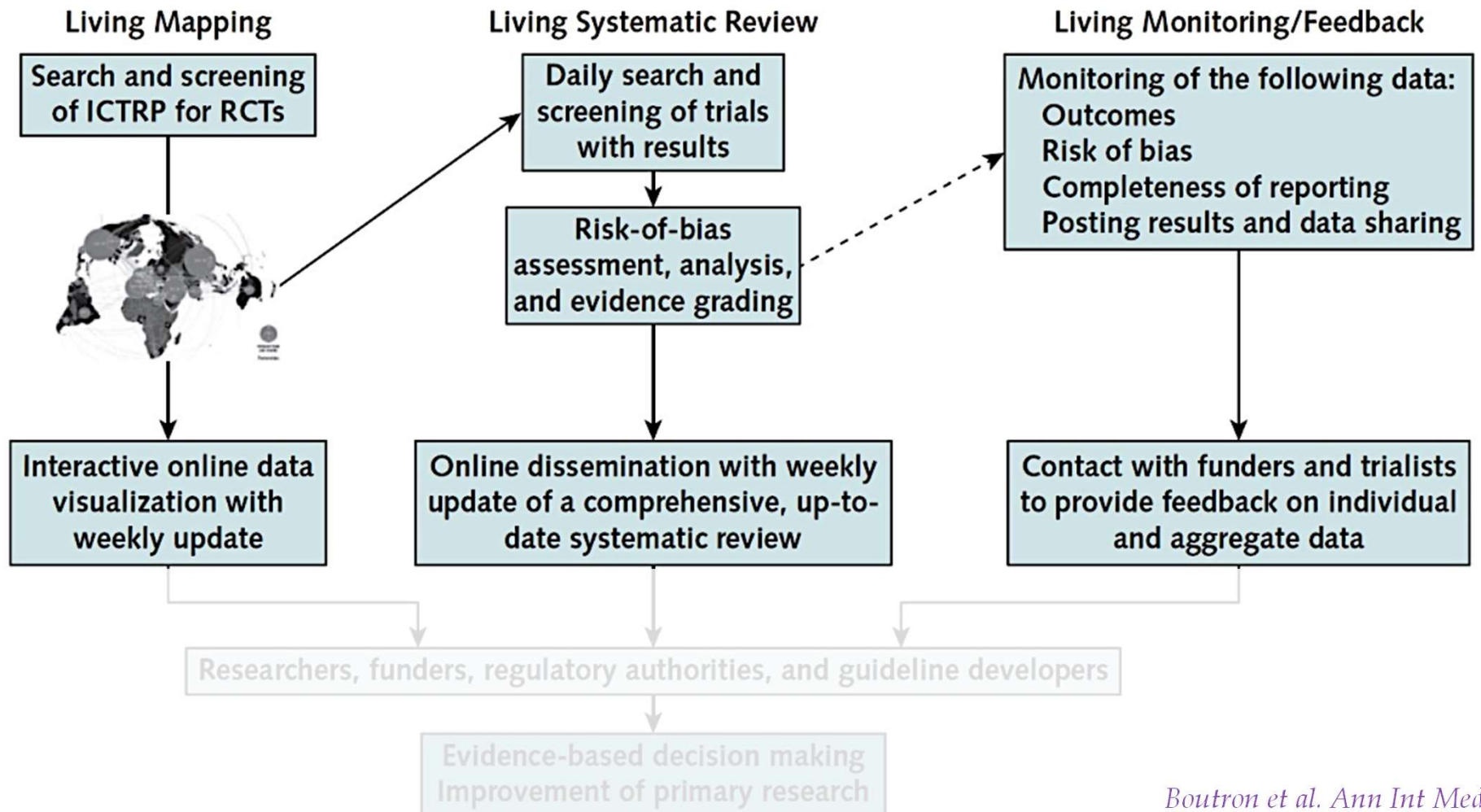
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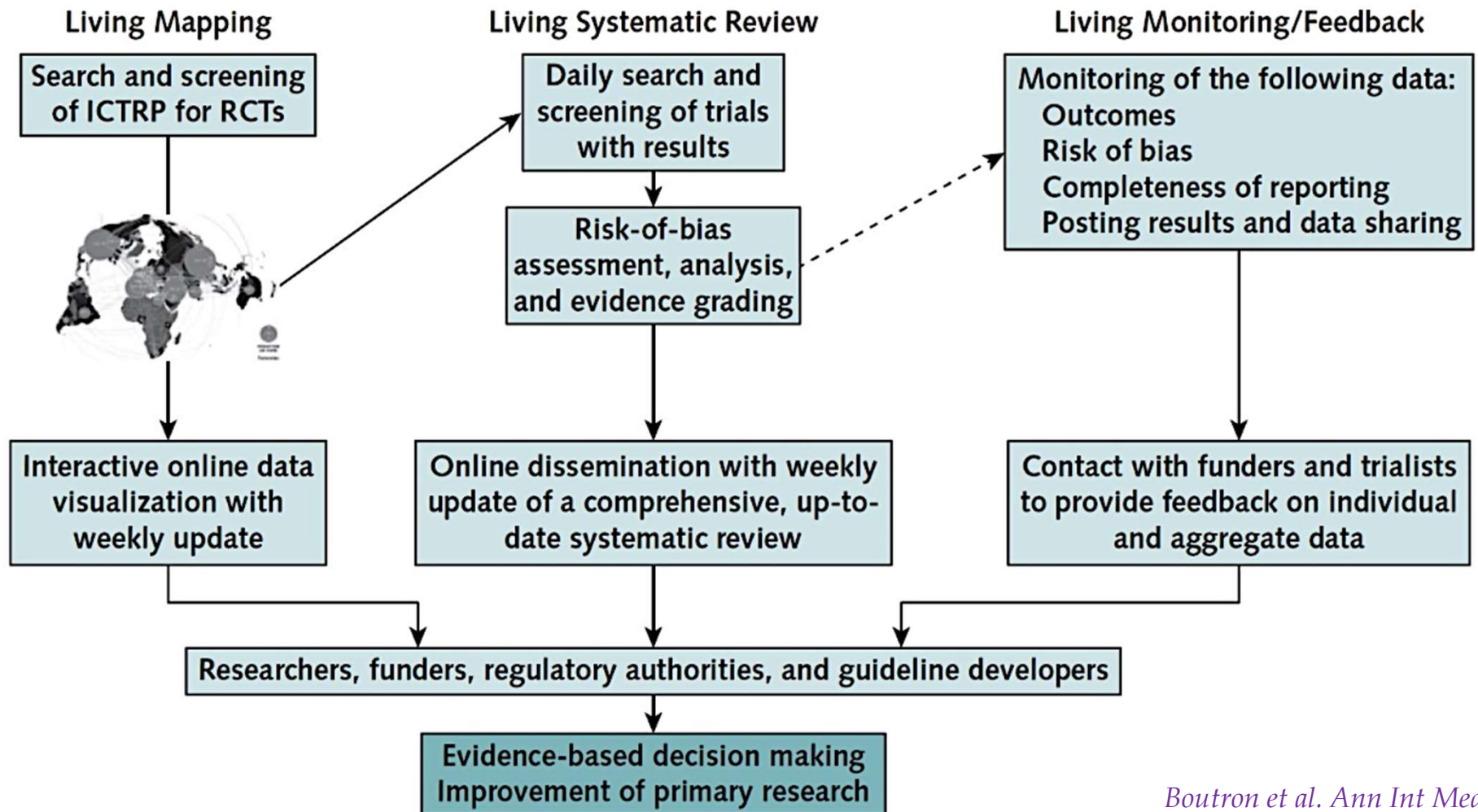
The COVID-NMA model



The COVID-NMA model



The COVID-NMA model



META-COVID

Perform your own analysis using COVID-NMA data, create and download your forest plots by clicking below:

metaCOV  D

Real-time meta-analyses of COVID-19 trials

SUMMARY OF MAIN RESULTS

Summary of the evidence for treatment of hospitalized COVID-19 patients identified up to May 4th, 2022 is available below. It will be updated monthly.



For earlier editions of the summary of main results, [click here](#)

BI-WEEKLY UPDATE

May 30 to June 08, 2022. see the update [here](#).

NEWSLETTER

To receive updates on our project, please subscribe below.

Subscribe

EXCLUDED STUDIES

[Download CSV file](#) (last update: 2022-03-14).

RETRACTED STUDIES

[Download CSV file](#) (last update: 2022-05-16).

(<https://covid-nma.com/>)

Preventive treatments



-NMA initiative systematic review of Covid-19 trials

initiative supported by the WHO and Cochrane.

focus on [preventive interventions](#), [treatments](#) and [vaccines](#) for COVID-19 to assist decision makers.

[View our evidence synthesis](#) and our [living review protocol](#) [here](#).

LIVING SYNTHESIS OF PUBLISHED STUDIES

(include both articles and preprints)

Updated daily

757

Studies (RCTs or Observational studies) with complete data extraction and results included in our evidence synthesis

499

RCTs on treatments

17

RCTs on prevention

146

RCTs on vaccines

95

observational studies on vaccines

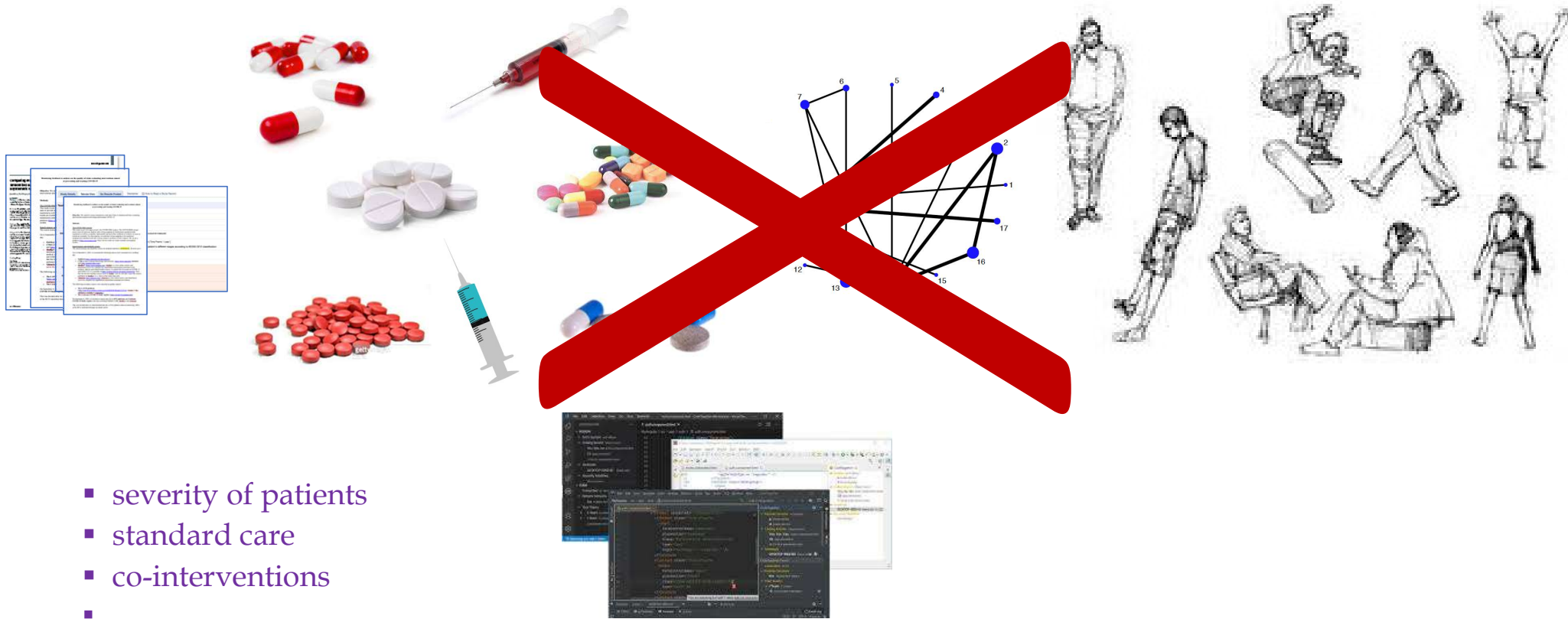
Rapidity versus validity

- The rapid process should not be a threat for the validity of the results
- Good-practice requirements should be followed in every step
 - setting the PICO for each research question
 - assessing risk of bias
 - checking of assumptions
 - defining the synthesis model
 - interpreting the results
- Too much emphasis on statistical synthesis might be problematic
 - very few data
 - assumptions potentially implausible
 - study credibility
 - retracted papers/interim results
 - over-interpretation of summary effects

Living process in all aspects of the review

- The term living usually refers to the incorporation of new studies in the review and the data synthesis
- All considerations should be re-evaluated as new data and new knowledge are available
- Example: plan for network meta-analysis
 - from a large network with all treatments to smaller less heterogeneous networks
 - possibly useless in the presence of very few data
 - relies on assumptions – potentially invalid results if not plausible

Challenges in network meta-analysis



- severity of patients
- standard care
- co-interventions
- ...

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- Broadening or restricting the scope and the research questions under investigation over time

Data sharing

- Development of concrete data sharing policy early-on
- Most important data freely available online (outcome data, risk of bias assessments, study characteristics and population characteristics)
- Database sharing: priority to guideline developers and related organizations
 - NICE, UK
 - Cochrane Austria
- After each publication, data available on <https://zenodo.org/>
 - IL-6, IL-1
 - mapping data available through the platform

metaCOVID (<https://covid-nma.com/metacovid/>)



Real-time meta-analyses of COVID-19 trials

- [Home](#)
- [Covid-19 treatments](#)
- [Covid-19 vaccines](#)
- [How to cite us](#)
- [Contact](#)

Select options

Select treatment comparison

Select an outcome

Population of interest

- All populations
- Mild populations
- Mixed populations
- Critical populations

Meta-analysis options

Type of model

All-cause mortality D28

Subgroup analysis

Severity

Sensitivity analysis

Risk of bias

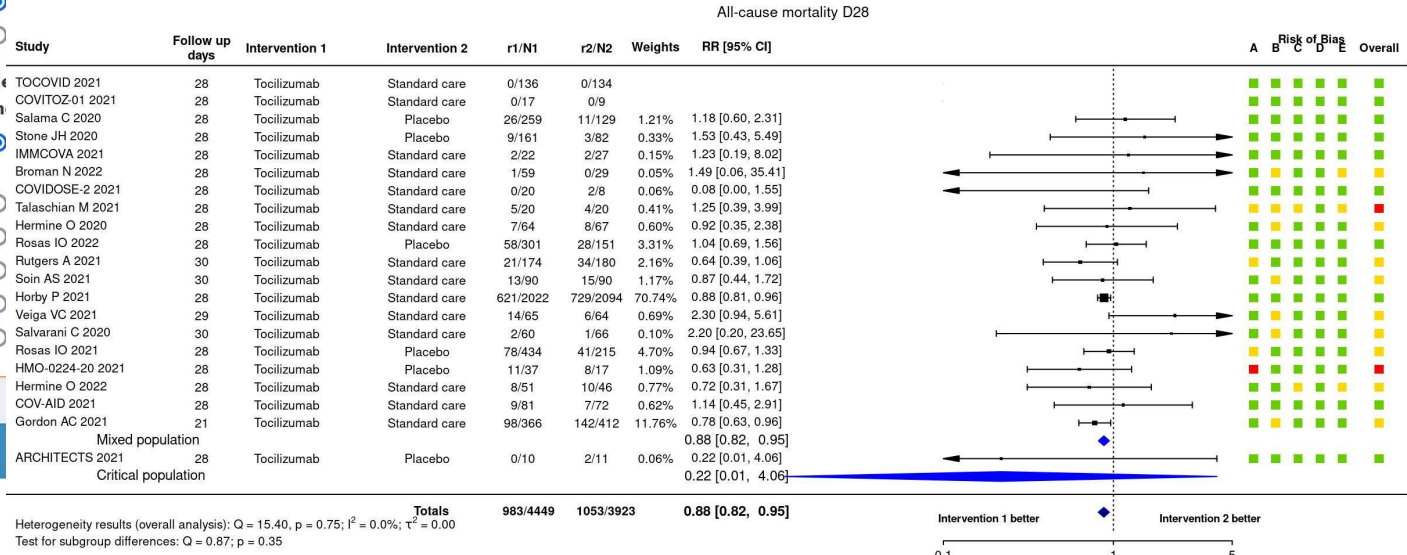
Presentation options

Hide treatment dose

Forest plot

Please select a comparison

Please select an outcome



Risk of bias ratings:

- Low Risk of Bias
- Some Concerns
- High Risk of Bias

Risk of Bias Domains:

- A: Bias due to randomization
- B: Bias due to deviation from intended intervention
- C: Bias due to missing data
- D: Bias due to outcome measurement
- E: Bias due to selection of reported result

Forest plot produced at: 06 14 2022
 Data source: the COVID-NMA initiative (covid-nma.com)

Automation

- Extremely resource-demanding process
- Several parts of the process automated/semi-automated
 - mapping or registered trials
 - screening (LOVE platform)
 - uploading new studies on the platform
 - statistical analyses
- Time-consuming parts
 - data extraction
 - risk of bias assessment (observational studies)

Contributors

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Thank you!

