

# Search Strategy for Evidence Reviews in COVID-19

1<sup>st</sup> May 2020



**National Centre for  
Pharmacoeconomics**  
NCPE Ireland



**Medicines Management  
Programme**

## Background

In March 2020, the COVID-19 Evidence Review Group (ERG) was established by the HSE to help inform decision making regarding medicines for COVID-19. This COVID-19 Evidence Review Group is comprised of evidence synthesis practitioners from across the National Centre for Pharmacoeconomics (NCPE), Medicines Management Programme (MMP) and the National Medicines Information Centre (NMIC). The group responds to queries raised via the Office of the Chief Clinical Officer, National Clinical Programmes and the Department of Health and responds in a timely way with an evidence review relating to the query.

## Methodology of literature searches

Literature searches undertaken as part of the Rapid Evidence Reviews identify relevant peer reviewed and non-peer reviewed scientific publications. A landscape analysis of clinical guidelines for the management of COVID-19 is also performed to identify international recommendations regarding the use of drug therapies in COVID-19.

## Targeted Literature Review

A targeted literature review is conducted to inform the Rapid Evidence Reviews based on a search strategy developed by the Information Specialist at the National Centre for Pharmacoeconomics (NCPE). A typical hierarchy of evidence is considered in the search, from highest to lowest:

- Systematic Literature Reviews and meta-analyses
- Randomised Controlled Trials
- Observational studies
- Published expert opinion

## Use and Quality of Evidence

Given the recent emergence of COVID-19, it was anticipated that there would be a scarcity of direct evidence and peer reviewed publications to inform the evidence reviews.

Therefore, it is deemed appropriate for the ERG to consider indirect evidence to inform specific questions.

The ERG also recognises that much of the evidence emerging on the clinical efficacy of treatments for COVID-19 is reported in unpublished scientific manuscripts or preprints. These are often preliminary reports which have not been subjected to robust peer review. In the interests of speed and open access, the international scientific community has recognised the advantage of preprints, particularly in settings where there is an urgent need for evidence. However, without peer-review, there is also a greater potential for dissemination of low-quality research. The ERG's critical appraisal of available research includes an assessment of the quality of the study reports and their limitations.

## Search strategy

The search strategy is described in Table 1. For each Rapid Evidence Review the same terms are extended to the specific area of enquiry. The information specialist at NCPE updates the search terms in Table 1 periodically to ensure they are capturing essential information. The search strategy has been externally reviewed by the Medical Librarian (David Mockler) at Trinity College Dublin.

**Table 1.**

Source	Search
<b>PubMed</b>	(coronavirus [MeSH]) OR ("coronavirus infections"[MeSH Terms]) OR (coronavirus [All Fields]) OR ("covid 2019") OR ("SARS2") OR ("SARS-CoV-2") OR ("SARS-CoV-19") OR ("severe acute respiratory syndrome coronavirus 2" [supplementary concept]) OR (coronavirus infection) OR ("severe acute respiratory" pneumonia outbreak) OR ("novel cov") OR (2019ncov) OR (sars cov2) OR (cov2) OR (ncov) OR (covid-19) OR (covid19) OR (coronaviridae) OR ("corona virus") <b>AND Choose disease/ drug specific terms</b>
<b>PubMed - Advanced Search for coronavirus and nosocomial infection and healthcare professionals.</b>	(((((coronavirus [MeSH]) OR ("coronavirus infections"[MeSH Terms]) OR (coronavirus [All Fields]) OR ("covid 2019") OR ("SARS2") OR ("SARS-CoV-2") OR ("SARS-CoV-19") OR ("severe acute respiratory syndrome coronavirus 2" [supplementary concept]) OR (coronavirus infection) OR ("severe acute respiratory" pneumonia outbreak) OR ("novel cov") OR (2019ncov) OR (sars cov2) OR (cov2) OR (ncov) OR (covid-19) OR (covid19) OR (coronaviridae) OR ("corona virus")))) AND ((nosocomial infection OR cross infection OR Hospital acquired infection or Healthcare associated infection))) AND ((nurse or nursing or nurses or healthcare professional or healthcare worker)) <b>AND Choose disease/ drug specific terms</b>
<b>Google Scholar</b>	COVID-19 coronavirus OR "coronavirus pneumonia" OR "COVID-19" OR "2019 novel coronavirus infection" OR "2019-nCoV" <b>AND Choose disease/ drug specific terms</b>
<b>LitCovid</b>	<b>Choose disease/ drug specific terms</b>
<b>MedRxiv/ BioRxiv</b>	Use the pre-set limits for COVID-19 SARS-CoV-2 preprints.
<b>ChinaXiv</b>	Title: "COVID-19" <b>AND Choose disease/ drug specific terms</b>
<b>EU Clinical Trials Register</b>	Prepopulated with COVID-19 clinical trials.
<b>ClinicalTrials.gov</b>	Prepopulated with COVID-19 clinical trials.
<b>Cochrane COVID-19 study register</b>	Prepopulated with COVID-19 clinical trials.
<b>Chictr.org.cn</b>	<b>Choose disease/ drug specific terms</b>

## Sources of evidence

- **PubMed** – preferred source for peer reviewed publications.
- **LitCovid** – Specifically curated literature hub for tracking up to date scientific information about COVID-19. Cross reference your search with LitCovid to ensure that no studies have been missed from PubMed.
- **Google scholar** does not have the functionality of EMBASE or PUBMED. Searches broader than the title can result in a non-specific result being generated.

- **MedRxiv and BioRxiv** – caution as this is a repository for non-peer reviewed evidence.
- **ChinaXiv**– caution as this is a repository for non-peer reviewed evidence.

### Clinical trial registers

- **EU Clinical Trials Register:** Prepopulated with specific COVID-19 studies
- **ClinicalTrials.gov:** International clinical trials website
- **Chictr.org.cn:** Chinese clinical trials register often not listed on clinicaltrial.gov

### Review and update

Given the rapidly changing landscape of this current international research, this protocol will be regarded as a live document therefore, search strategies indicated here may need to be expanded to include additional terms to reflect the evolving situation.