Current Strategies for Updating Systematic Reviews

A Webcast Hosted by AIR’s Center on KTDRR

January 26, 2022
REH-COVER Project: A Rapid Living Systematic Review on Rehabilitation Intervention for the Management of COVID-19

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COVID-19 and rehabilitation role

- The World Health Organization (WHO) declared the health emergency of international concern on March 11, 70 days after the discovery of the new virus;
- COVID-19 and its sequelae may require rehabilitation; and
- Given the unprecedented scenario, there was the need for a timely and updated answer.
Cochrane Rehabilitation response

REH-COVER (Rehabilitation—COVID-19 Evidence-Based Response) action:

1. Rapid Living Systematic Reviews on Rehabilitation and COVID-19 (three editions with monthly updates during 2020 and bimonthly updates during 2021)
2. Interactive Living Evidence Map on Rehabilitation and COVID-19 (constantly updated)
Rapid living systematic reviews on rehabilitation and COVID-19

(See Negrini, Ceravolo, Côté, & Arienti, 2021.)
Innovative methodological approach

Combining:

Rapid Systematic Review

A form of knowledge synthesis that accelerates the process of conducting a traditional systematic review through streamlining or omitting specific methods to produce evidence for stakeholders in a resource-efficient manner.

Living Systematic Review

Systematic review which is continually updated, incorporating relevant new evidence as it becomes available.
The evolution of methodology

Three editions, with gradual work improvement, and biannual updates (2020)+ four bimonthly updates (2021)
The changes of methodology

A **multiprofessional and international working group** has been established:

- **Clinical working group**: three Italian PRM physicians;
- **Methodological working group**: Cochrane Rehabilitation headquarters; and
- **International Multiprofessional Steering Committee**: 13 COVID-19 research experts
Changes of the methodology
Rehabilitation research framework

In collaboration with the World Health Organization Rehabilitation Programme (WHO-RP), a list of research questions was produced and then prioritized through three Delphi Rounds:

- **Epidemiology** of limitation of functioning (disability)
- Evidence on rehabilitation for COVID-19 at the **individual level** (micro-level)
- Evidence on rehabilitation for COVID-19 at the **service level** (meso-level)
- Evidence on rehabilitation for COVID-19 at the **system level** (macro-level)
Changes of methodology
Research questions

1. Prevalence and/or the characteristics of emerging disability after COVID-19?

2. Rehabilitation approaches dedicated to COVID-19 patients?

3. The organization of rehabilitation services after COVID-19?

4. The impact of COVID-19 on diseases of rehabilitative interest?

5. Late complications that may be of rehabilitative interest?
Algorithm for the level of evidence

Algorithm – See Figure 1, Grimes & Schulz (2002)
OCEBM 2011 Levels of Evidence table

Data extraction

The following data for each included paper were extracted at each update:

• Study design;
• Research question;
• COVID-19 phase;
• Limitations of functioning (disability) of rehabilitation interest (LFRI);
• Type of rehabilitation service, using the classification of the European Union of Medical Specialists (UEMS) Physical and Rehabilitation Medicine Section¹;
• PICO (Population – Intervention – Comparison – Outcome) elements; and
• Main findings.

¹ Stucki et al. (2019)
Third edition: The critical appraisal

Cochrane Risk of Bias tool

Methods Research Report
Developing and Testing a Tool for the Classification of Study Designs in Systematic Reviews of Interventions and Exposures

Prepared for:
Agency for Healthcare Research and Quality
U.S. Department of Health and Human Services
540 Gaither Road
Rockville, MD 20850
www.ahrq.gov

Contract No. 290-02-0023

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# Rehabilitation and COVID-19: Update of the rapid living systematic review by Cochrane Rehabilitation Field as of 31 August 2021

## Table III. Distribution of studies by research question and study design (according to the Agency for Healthcare Research and Quality).^{15}

<table>
<thead>
<tr>
<th>Study Design</th>
<th>RCT</th>
<th>Cross-sectional</th>
<th>Cohort</th>
<th>Non RCT</th>
<th>Total N. (%)</th>
<th>Total 3rd edition N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research question</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epidemiology: clinical presentation</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Epidemiology: prevalence</td>
<td>0</td>
<td>22</td>
<td>1</td>
<td>0</td>
<td>23 (53.5)</td>
<td>36 (52.9)</td>
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<tr>
<td>Epidemiology: natural history, determining and modifying factors</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>0</td>
<td>11 (25.6)</td>
<td>18 (26.5)</td>
</tr>
<tr>
<td>Micro-level: individuals</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>9 (20.9)</td>
<td>14 (20.6)</td>
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<tr>
<td>Meso-level: health services</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Macro-level: health systems</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total N. (%)</td>
<td>5 (11.6)</td>
<td>22 (51.2)</td>
<td>13 (30.2)</td>
<td>3 (7.0)</td>
<td>43 (100)</td>
<td>68 (100)</td>
</tr>
<tr>
<td>Total 3rd edition, N. (%)</td>
<td>8 (11.8)</td>
<td>35 (51.5)</td>
<td>22 (32.4)</td>
<td>3 (4.4)</td>
<td>68 (100)</td>
<td></td>
</tr>
</tbody>
</table>
RESULTS

Up to now, **13 papers** (three main papers and 10 updates) have been published in the *European Journal of Physical and Rehabilitation Medicine*.

All the results have been also published in our **website** in **different formats**:

- A **mapping** that summarizes all the information according to the COVID-19 research topics agreed upon with the WHO rehabilitation programme;

- A **dynamic table**; and

- A **geographic map** that shows where the evidence is produced.
Evidence Map

Dynamic Table

Evidence Map Dynamic Table

Limitations of Functioning of Rehabilitation Interest

<table>
<thead>
<tr>
<th>Acute</th>
<th>Post-acute</th>
<th>Chronic</th>
<th>Late onset</th>
<th>Not Applicable</th>
<th>All phases</th>
</tr>
</thead>
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</tbody>
</table>

Evidence micro level (individuals) Outcome Measures

Interventions (efficacy/thems)

Evidence meso level (health services) Evidence meso level (health services)

Evidence macro level (health systems) Evidence macro level (health systems)

Evidence Map Dynamic Table

Successful awake proning is associated with improved clinical outcomes in patients with COVID-19: single-centre high-dependency unit experience

The frequency of physical therapy visits in acute care hospitals was variable with a mean of 0.5 visits per day (ie, one visit every other day), but which ranged from 0.1 to 1.5. The mean visit duration was 25.3 minutes.

Patients with COVID-19 demonstrated improved mobility at hospital discharge and higher probability of discharging home with increased frequency and longer mean duration of physical therapy visits. These associations were not generally moderated by patient characteristics. Physical therapy should be an integral component of care for patients hospitalized due to COVID-19 (more frequent and longer physical therapy visits).
CONCLUSIONS

• The body of evidence, while very heterogeneous, is rapidly growing;

• However, most of this evidence is made up of case reports and case series;

• So far, only eight RCTs have been produced; and

• It is still difficult – if not impossible – to draw any conclusion.

Objective: To investigate the effects of 6-week respiratory rehabilitation training on respiratory function, QoL, mobility and psychological function in elderly patients with COVID-19.
"Coronavirus (COVID-19): evidence relevant to clinical rehabilitation” special collection on the Cochrane Library

Cochrane Library Special Collection

ADDITIONAL REH-COVER ACTIONS
ADDITIONAL REH-COVER ACTIONS (Cont’d)

“Coronavirus (COVID-19): evidence relevant to clinical rehabilitation” special collection on the Cochrane Library

Rapid Reviews in collaboration with the WHO

- Post-intensive care syndrome (PICS)
- Acute respiratory distress syndrome (ARDS)
- Pulmonary restrictive syndrome
- Post-extubation swallowing disorders
- Multiple organ failure
- Post-traumatic stress disorder (PTSD)

Priorities for research defined in collaboration with WHO rehabilitation programme

↓

Paper in production

↓

In production
References


References (Cont’d)


Thank you!

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For all the information about our REH-COVER Action, visit our website!

Thank You!

Evaluation:

KTDRR Webcasts:
https://ktdrr.org/training/webcasts/index.html