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Trusted evidence.
Informed decisions.
Better health.

Overview of Cochrane Evidence relevant to rehabilitation for Post COVID-19 condition

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Cochrane Rehabilitation Field: a bridge

Cochrane



Rehabilitation
stakeholders

Ponto Rialto Venezia

REH-COVER action

REHabilitation – COVID-19 Evidence-based Response

COVID-19 HISTORY

December 2019
31| Discovery of SARS-CoV-2

January 2020
23| lockdown of Wuhan, Hubei region (China)
31| First case of COVID-19 in Italy

February 2020
21| First cluster of cases in Italy
22| First death in Italy
23| First lockdown in red zones in Italy

March 2020
11| Country lockdown in Italy
13| Declaration of pandemic by WHO

REH-COVER ACTION



March 2020

▪ Decision to start with a living rapid systematic review

► [Eur J Phys Rehabil Med.](#) 2020 Oct;56(5):642-651. doi: 10.23736/S1973-9087.20.06501-6.

Epub 2020 Jul 24.

Rehabilitation and COVID-19: the Cochrane Rehabilitation 2020 rapid living systematic review

Maria G Ceravolo ¹, Chiara Arienti ², Alessandro de Sire ^{3 4}, Elisa Andrenelli ⁵, Francesco Negrini ⁶,
Stefano G Lazzarini ², Michele Patrini ², Stefano Negrini ^{6 7},

International Multiprofessional Steering Committee of Cochrane Rehabilitation REH-COVER action

Collaborators, Affiliations + expand

PMID: 32705860 DOI: 10.23736/S1973-9087.20.06501-6

Free article

Update in

Rehabilitation and COVID-19: the Cochrane Rehabilitation 2020 rapid living systematic review. Update as of July 31st, 2020.

Negrini F, de Sire A, Andrenelli E, Lazzarini SG, Patrini M, Ceravolo MG; International Multiprofessional Steering Committee of Cochrane Rehabilitation REH-COVER action.

[Eur J Phys Rehabil Med.](#) 2020 Oct;56(5):652-657. doi: 10.23736/S1973-9087.20.06539-9. Epub 2020 Sep 1.

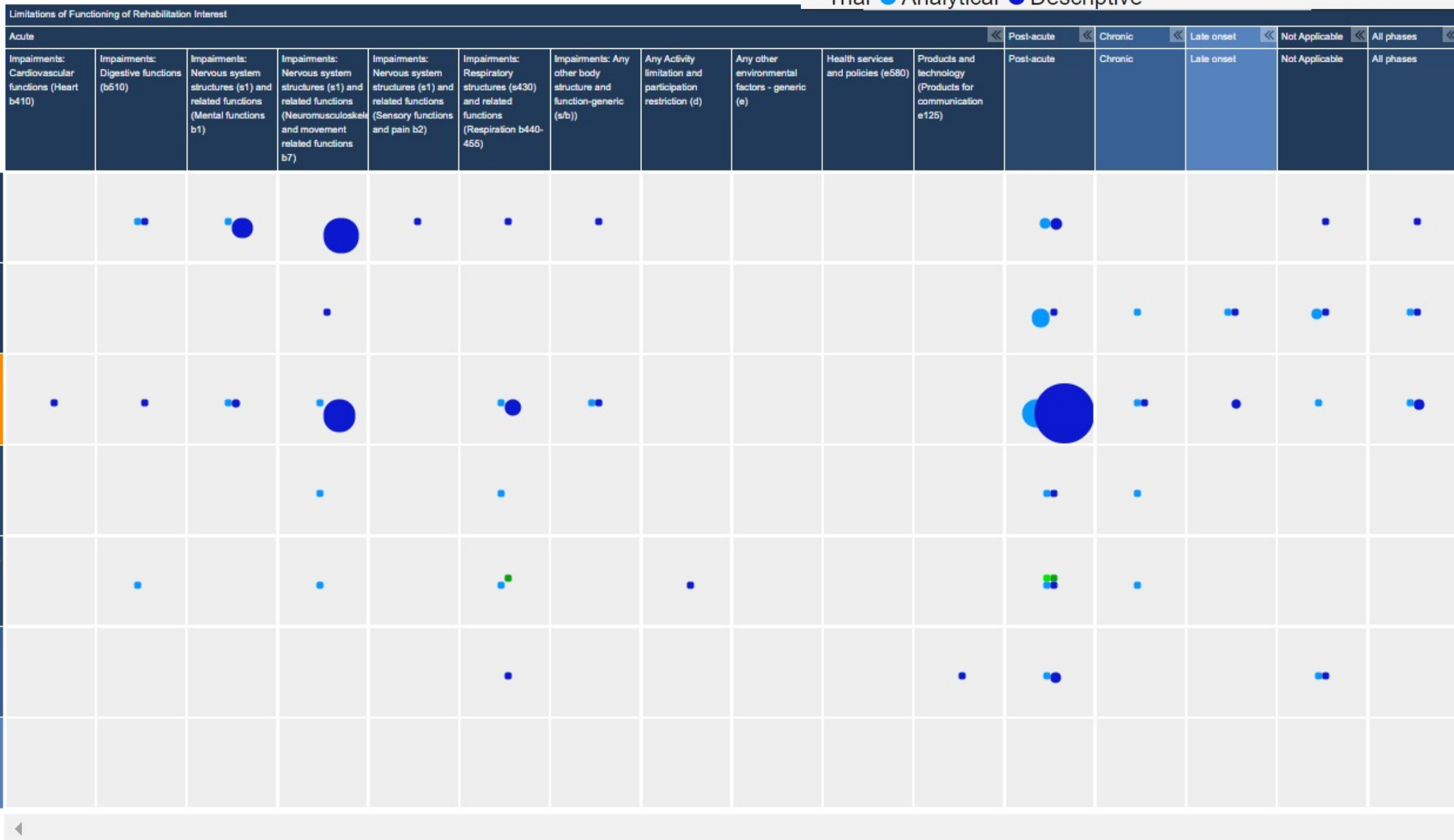
PMID: 32869962

Rehabilitation and COVID-19: a rapid living systematic review 2020 by Cochrane Rehabilitation Field. Update as of September 30th, 2020.

Andrenelli E, Negrini F, De Sire A, Patrini M, Lazzarini SG, Ceravolo MG; International Multiprofessional Steering Committee of Cochrane Rehabilitation REH-COVER action.

[Eur J Phys Rehabil Med.](#) 2020 Oct 29. doi: 10.23736/S1973-9087.20.06672-1. Online ahead of print.

PMID: 33118719



Complete table: Rehabilitation and COVID-19: the Cochrane Rehabilitation 2020 rapid living systematic review

Last updated November 2, 2020

Abbreviations References

ID	Update	Author	DOI	Year	Country	Dates	Aim of the study	Study Design	Type of rehabilitation service	Research Question
1	June	Aoyagi Y	10.1007/s00455-020-10140-z	2020	Japan	N/R	To report the first case of a patient with oropharyngeal dysphagia associated with COVID-19 and discuss the potential underlying cause.	Descriptive: Case Report	Rehabilitation in acute care	Epidemiology - Clinical presentation



Evidence «on»

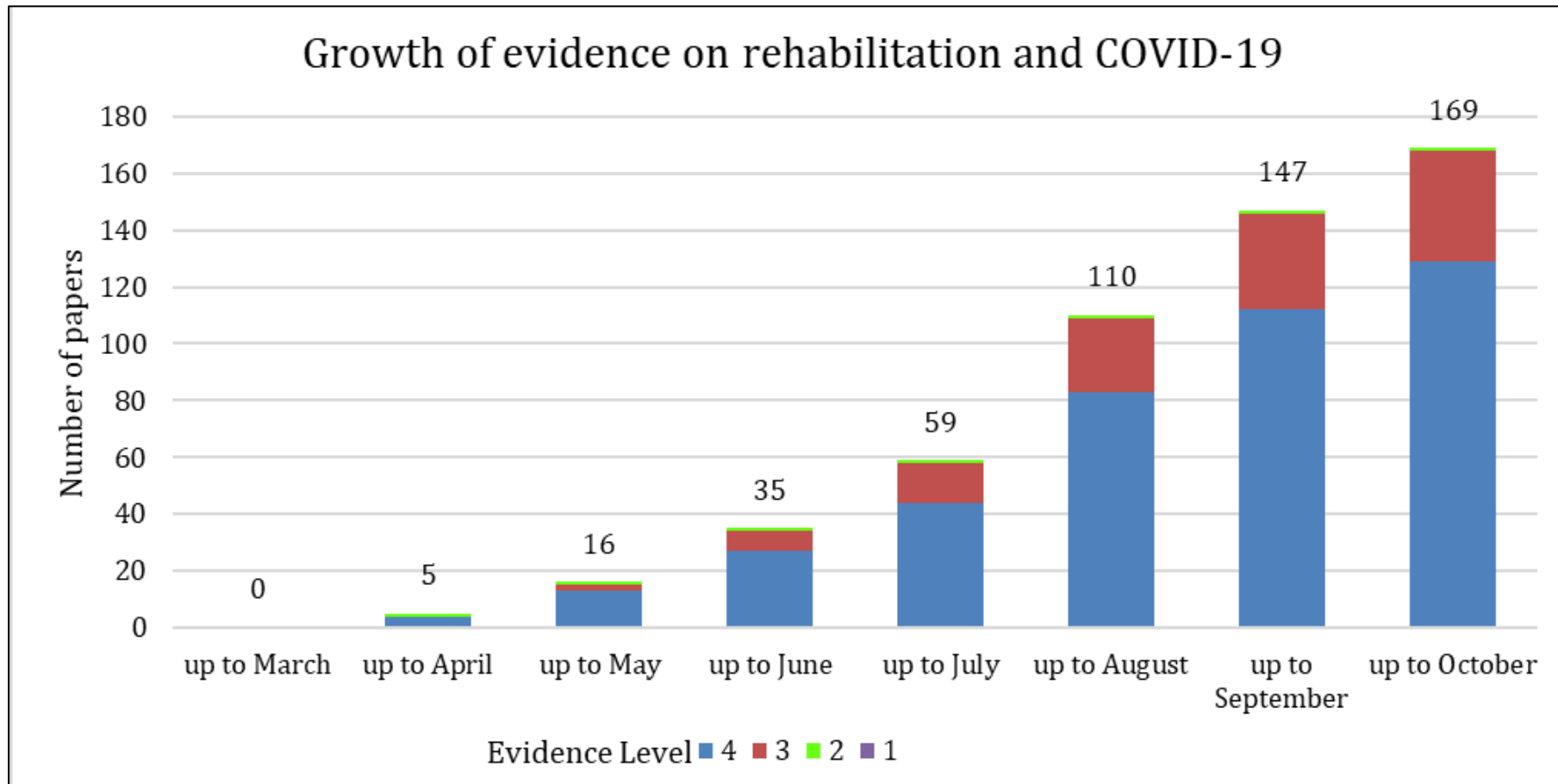
versus

Evidence «relevant to»





Best available evidence (Oxford EBM Levels)

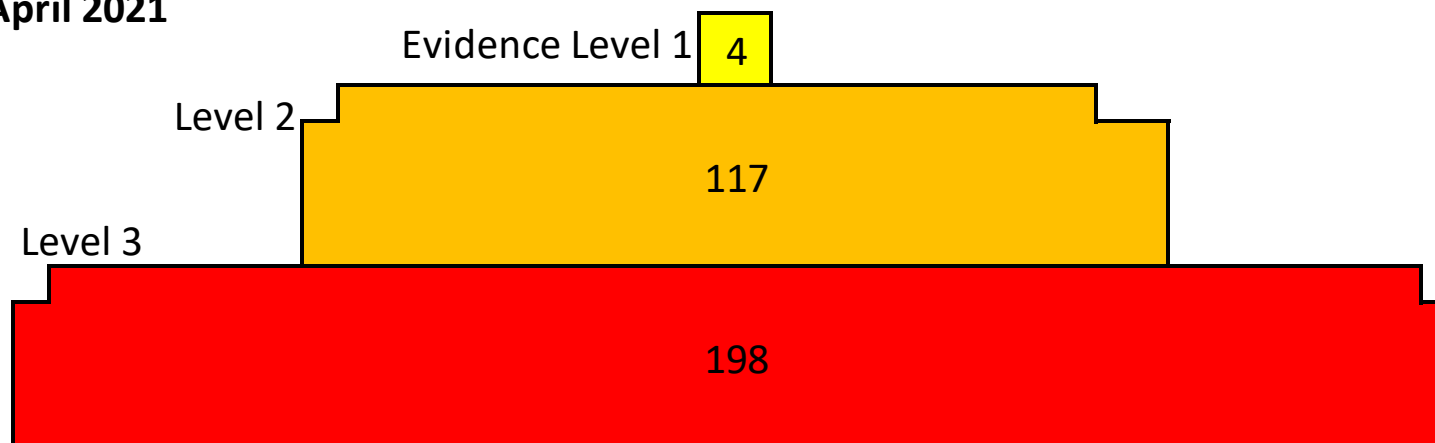




Climbing the pyramid of evidence



April 2021



Rapid reviews on expected COVID-19 sequelae

1. Multiple Organ Dysfunction Syndrome (MODS)

- J Rehabil Med 2021

2. Acute Respiratory Distress Syndrome (ARDS)

- Cochrane Library - protocol accepted, under submission

3. Post-Traumatic Stress Disorders (PTSD) (only psychological treatments as part of the rehabilitation process)

- submitted

4. Post Intensive Care Syndrome (PICS)

5. Restrictive Lung Diseases

6. *(Post-extubation and neurological dysphagia)*

Toward a Post COVID-19 condition WHO interim guideline

1. shortness of breath, **dyspnea**, breathlessness
2. **fatigue**, post-exertional fatigue, exhaustion, reduced exercise capacity, weakness, reduced functional performance
3. **orthostatic intolerance**, Postural Orthostatic Tachycardia Syndrome (POTS), autonomic nervous system dysfunction
4. post-exertional symptom exacerbation, **post-exertional malaise**
5. **dysphagia**, swallowing disorder
6. attention deficit, memory and concentration impairment, executive dysfunction, **cognitive** communication disorder
7. (anxiety) & (depression)

Actions

Systematic reviews on current **evidence on** rehabilitation and post COVID-19 condition (long COVID)

1. Interventions efficacy
2. Health Systems management of rehabilitation services

Overview of Cochrane Reviews of current **evidence relevant to** rehabilitation and post COVID-19 condition (long COVID)

3. Symptoms (impairments and activity limitations)

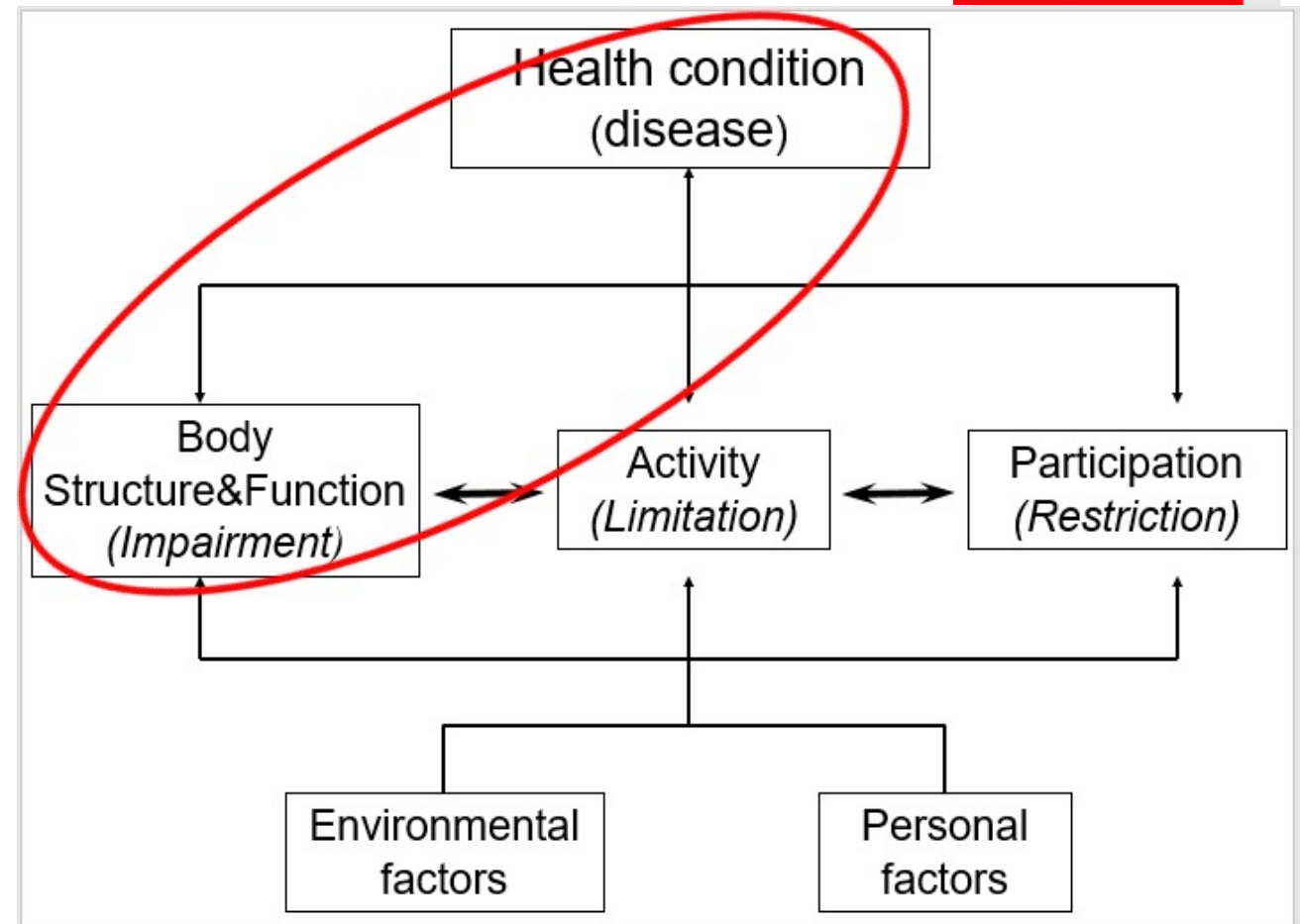
Evidence on Post COVID-19 condition

Population: Post COVID-19 condition

Interventions: any

Comparison: any

Outcome: any relevant symptom



Evidence relevant to Post COVID-19 condition

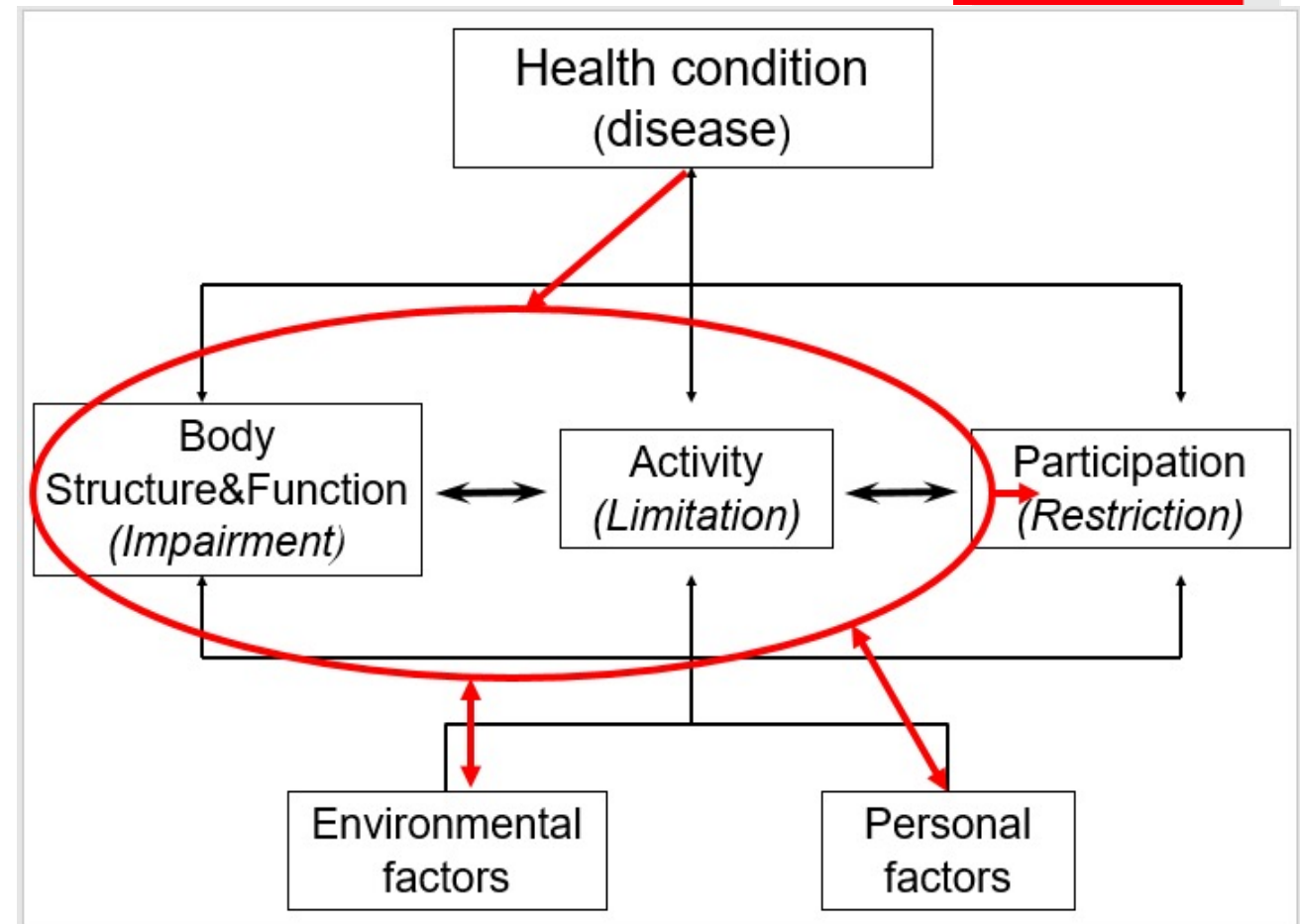
Outcome: known Post COVID-19 condition symptoms

- Impairments
- Activity limitations

Interventions: any

Comparison: any

Population: any comparable health condition



Methods

All **Cochrane Reviews** of the last **5 years** (RCTs up to 6-7 years ago)

- **Population**
 - adults
 - chronic, stable health condition
- **Interventions & Comparison:** all
- **Outcome:** pre-defined symptoms

Mapping of **GRADEd** (strength of evidence) results according to:

- Intervention
- Health condition

Toward a Post COVID-19 condition WHO interim guideline

1. shortness of breath, **dyspnea**, breathlessness
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Dyspnea – Comparison: no/sham/usual care

Comparisons vs no/sham/usual care	Chronic respiratory diseases	Stable COPD	Interstitial lung disease	Idiopathic pulmonary fibrosis	Cancer
Pulmonary rehabilitation			L	L	
Pulmonary rehabilitation/exercise training		M			
Exercise training					L VL
Upper limb training		M			
Integrated disease management		M			
Multicomponent intervention (rehabilitation, organisation of care, pharmacotherapy)		na			
Non-Invasive ventilation		na na na			
Neuromuscular Electrical Stimulation		VL			
Physical activity counselling		L			
Singing		VL			
Supervised maintenance programme		na			
Telerehabilitation	L				

Dyspnea – as an adjunct treatment

Treatment studied	Adjunct treatment	Stable COPD	
Exercise training and drugs	Behaviour modification	M	
Exercise training and drugs	Behaviour modification and drugs	M	M
Structured exercise training	Self-management	L	L
Active mind-body movement therapies	Pulmonary rehabilitation	VL	
In-person physical activity counselling intervention	Pulmonary rehabilitation	L	
inspiratory muscle training	Pulmonary rehabilitation	M	
Non-invasive ventilation	Pulmonary rehabilitation	L	
Physical activity counselling intervention	Optional supervised exercise	L	

Dyspnea – Comparison: any other intervention

Treatment	Comparison	Chronic respiratory diseases			
		Stable COPD	Bronchiectasis	Cystic fibrosis	
NIV in overnight ventilation	Room air				na
NIV in overnight ventilation	Oxygen				na
Pulmonary telerehabilitation	Pulmonary Rehabilitation	L			
Active mind-body movement therapies	Pulmonary Rehabilitation		VL		
Web-based pulmonary rehabilitation	Pulmonary Rehabilitation		L		
Oscillatory PEP therapy	Active cycle of breathing technique with Gravity-assisted drainage			L	
Water-based exercise training	Land-based exercise training		L		

What next

WHO

- Expert opinions (development group) to define **interim guidance** on Post COVID-19 condition

Cochrane Rehabilitation

- Completion of the work and publication of results

Research community

- Use of results as hypothesis gathering to **develop «evidence on»**

Clinical community

- **Possible interventions** while waiting for «evidence-on»



SAVE THE DATE

COCHRANE REHABILITATION
5TH ANNIVERSARY (Online)

DECEMBER 13 / 14, 2021

Discover the future
of Cochrane Rehabilitation

DECEMBER 16, 2021

Take action with Cochrane Rehabilitation

Trusted evidence.
Informed decisions.
Better health.

Thank you

More details on
how to be involved
will be shared when
available