## Care Models for Long COVID/Post COVID-19 Condition A Rapid Systematic Review

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# Expanding Our Understanding of Post COVID-19 Condition World Health Organization October 6<sup>th</sup> 2021



























## Meanwhile in Canada...

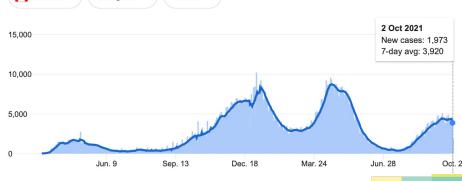
- Despite strong vaccination efforts, 1.64M cases, 27K deaths, for a 38M population
- We are currently in our 4<sup>th</sup> wave of the pandemic
- Quick facts about Canada:
  - 13 provinces and territories
  - Independent, but one universal federal law.
  - Population spread across a large geography, including northern territories.
- SPOR Evidence Alliance and COVID-END knowledge synthesis infrastructure.













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## A Review of Care Models?

- Long COVID was recognized very early in Canada
- Among our first Long COVID clinics was set-up by an infectious disease specialist named Dr. Alain Piché from Sherbrooke in May 2020
- Alberta was also among the first province to create a task force to organize care models for Long COVID
- My team obtained a first research grant in July 2020
- Rise of concerns in Canada in January 2021 amid the second wave.
- First query to COVID-END was asked in April 2021
- Public Health Agency of Canada officially recognized Post COVID-19 Condition in July 2021











## **Care Models for Long COVID**

#### **A Rapid Systematic Review**

Date of Literature Search: 5/27/2021

Date of Submission: 6/18/2021

#### Prepared by:

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#### For and in close collaboration with:

Alberta Health Services Stephanie Hastings, PhD Branden Manns, MD, MSc Lynora Saxinger, PhD

https://sporevidencealliance.ca/wp-

content/uploads/2021/06/Care-Models-for-Long-COVID Full-

Report 2021.06.18.pdf





## **Methods**

- **Objective:** To provide the best-available evidence about care models for people living with Long COVID
- We performed a rapid systematic review following the Joanna Briggs Institute's Manual for Evidence Synthesis
- We systematically searched on May 27<sup>th</sup> 2021 seven electronic database: MEDLINE, Embase, Web of Science, COVID-END, L-OVE, CDRS and WHO Ovid
- Two independent reviewers screened title, abstract and full text
- We included studies reporting on 1 people living with Long COVD and 2- a specific care model (i.e. structured clinic, care pathway).
- We extracted characteristic of studies, referral pathways, clinical settings of care model, healthcare professions included in the care models, clinical settings, care model principles, care model components and reporting of the care model implementation.

#### **Eligibility Criteria**

Our inclusion criteria (PICO) were as followed:

**Population**: Persons living with Long COVID (children and adults) or healthcare professionals

managing Long COVID. We included all definition of persistent symptoms of COVID-19

(e.g., post-COVID syndrome).

Intervention: Care models (including pathways, trajectories, frameworks or structured clinics) to

organise health care services for Long COVID.

Comparator: Natural recovery, usual care models, inter-jurisdiction models comparison if available.

Outcomes: Any outcomes or specifically system-level outcomes (e.g., cost, access, quadruple

aim), patient-level outcomes (e.g., specific PROMS related to symptoms), clinician-

level outcome (e.g., satisfaction with the care pathways).

Study design: Any design.

**Settings:** Any setting.

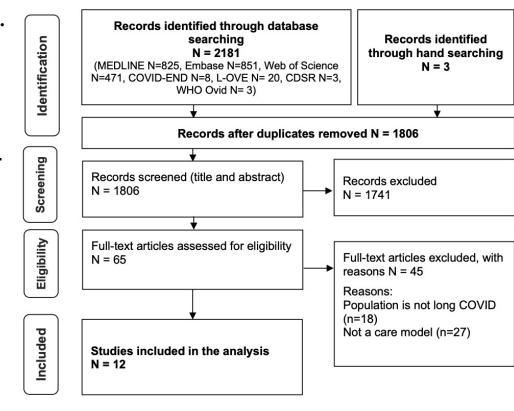


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## Results

- We screened 2181 citations, read 65 full texts and included 12 international care models for Long COVID.
- Half of studies were from the United Kingdom.
- 7 out of 12 studies reported conceptual models without a description of implementation
- All but one model was designed for discharge and longterm follow-up of hospitalized patient and half for nonhospitalized
- A total of 30 healthcare professions and medical specialities were proposed for staffing Long COVID services.
- More than half studies proposed multidisciplinary teams, integrated/coordination of care, evidence-based care, and patient patient-centred care as key model principle
- Standardized assessment, follow-up system and virtual care were the most frequent care model components.







based on a rapid systematic review of care models for Long COVID - June 2021



Integrated &





Shared &

**OVERARCHING PRINCIPLES** Patient-centered care Patient empowerment Evidence-based care coordinated care multidisciplinary care **Patient Pathway Post-COVID Learning Ecosystem** People who had Rehabilitation COVID in the community · Disability management (long term if needed) Primary care visit Targeted personnel (4-12 wks) - Physiotherapist New or Alternative - Occupational therapist ongoing Assessment and diagnoses - Nutrition symptoms investigation of ruled out - Speech & language therapist new or ongoing Post-COVID symptoms assessment & triage **Primary care** · Care and referral coordination Tailored to Standardized assessment\* patient - Respiratory issues needs · Care coordination - Fatigue & strength Medication management - Pain & discomfort Comorbidities management
 Self-management support
 → follow-up - Sleep - Cognition - Mood & mental health Referral Targeted personnel according to People - Nutrition & weight - General practitioner - Usual activities & occupation patient needs - Social worker hospitalized - Social determinants - Nursing with COVID - Pharmacist Personnel - Any physician Post-discharge - Trained healthcare professional Specialty care ollow-up (6-8 wks) \*COVID-19 Yorkshire Alternative Rehabilitation Scale and Assessment and diagnoses Newcastle Post-COVID investigation of • Further investigation for organ ruled out Screening Tool new or ongoing impairment & follow-up symptoms Targeted specialties - Pulmonary/respiratory - Cardiovascular - Psychiatry/psychology Provider support: Patient support: - Neurology - Standardized assessment - Home-based care - Hepatology - EMR template - Patient education - Otolaryngology - Referral and follow-up system - Patient support groups - Dermatology - Telehealth / virtual care - Training

**OUTCOMES** Quality of life Patient experience Provider experience Sustainable cost

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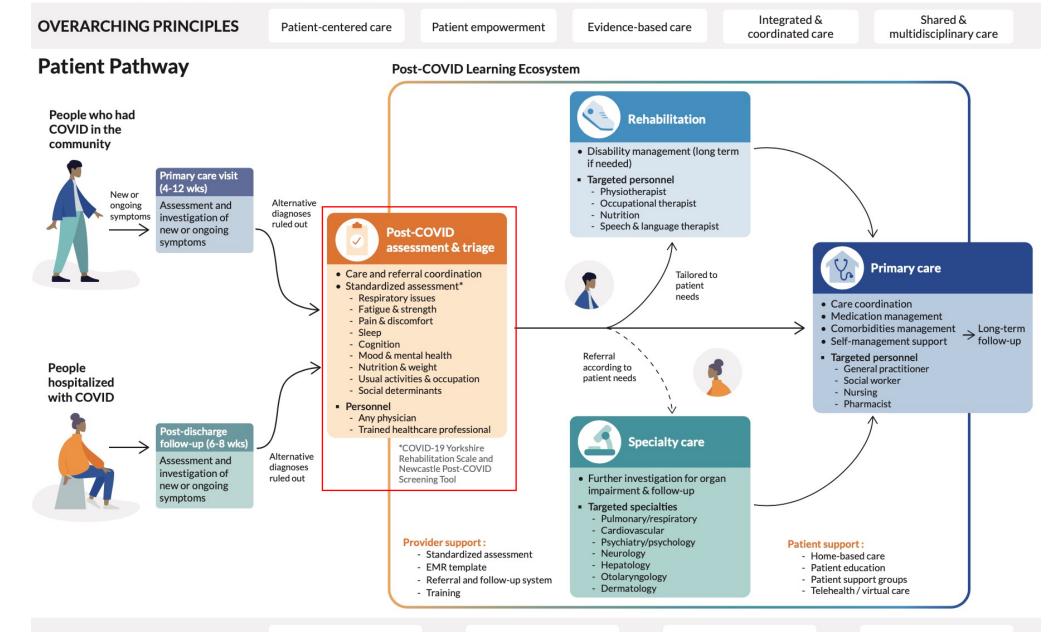
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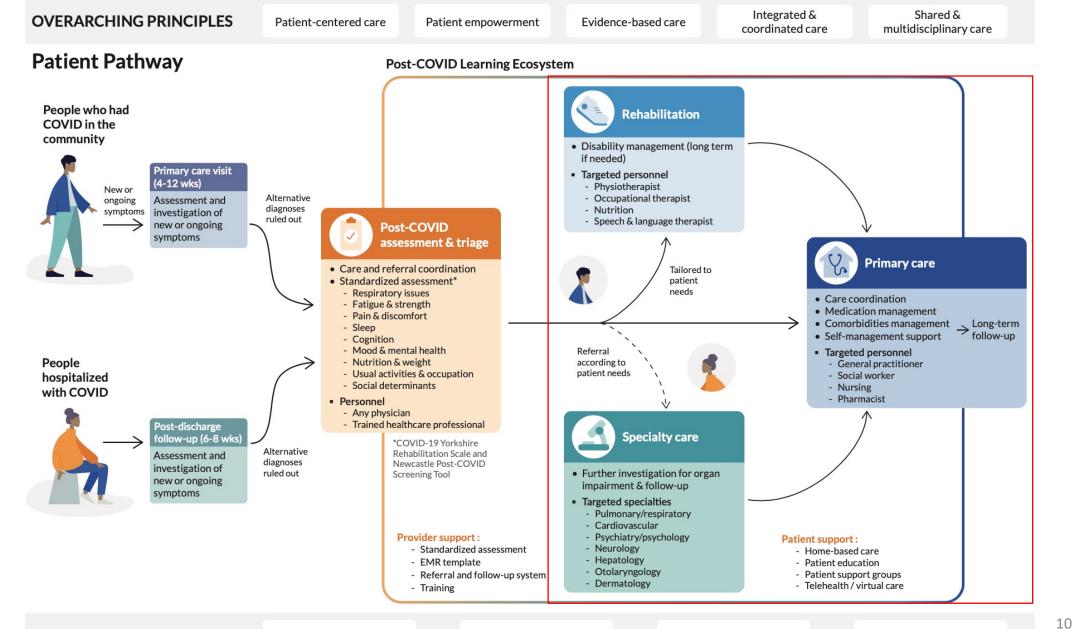
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Integrated &





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## **Discussion**

- Rapid review... to living review! Update coming in November.
- The implementation of care models from Long COVID is underway in several countries.
- Evidence concerning rehabilitation interventions is building rapidly and this will impact model pathways and trajectories.
- There is still unmet needs in the current form of rehab models (e.g. return to work, children).
- Rehabilitation care models require more precision (e.g. service framework).
- New research super clusters (e.g. LOCOMOTION) will rapidly produce missing evidence, but limited to large countries.
- Real-time and locally contextualized data could be captured from already running clinical initiatives worldwide.
- No impact and cost analysis data



## I am taking history lessons from patient communities...

A care model that is safe, adaptable, integrated, equitable, accessible, financially sustainable and most importantly that improves the experience and engagement with care for people with disabilities from Long Covid, post infectious conditions and any other chronic or episodic disabilities.



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## Thank you!

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