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COVID-END
COVID-19 Evidence Network
to support Decision-making
... in Canada

Care Models for Long COVID

A Living Systematic Review

First Update – December 2021

With the following supplements:

1. Ongoing Canadian care models
2. Patient perspectives
3. Alignment with WHO case definition and NICE guidelines

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Table of Contents

EXECUTIVE SUMMARY	3
UPDATED CONTEXT.....	4
OBJECTIVES	4
METHODS.....	5
RESULTS.....	7
CHARACTERISTICS OF THE NEWLY INCLUDED STUDIES	7
CARE MODELS' COMPONENTS	7
HEALTHCARE PROFESSIONALS AND MEDICAL SPECIALTIES INCLUDED IN CARE MODELS.....	7
DISCUSSION	8
CONCLUSION.....	8
SUPPLEMENT 1 – ONGOING CANADIAN CARE MODELS.....	14
SUPPLEMENT 2 – PATIENT PERSPECTIVES.....	29
SUPPLEMENT 3 – ALIGNMENT WITH WHO CASE DEFINITION AND NICE GUIDELINES.....	37
REFERENCES	41
APPENDIX 1 - DEFINITIONS	44
APPENDIX 2 - SEARCH STRATEGIES	47

Executive Summary

Context. It is estimated that up to 500K Canadian had or are living with Long COVID resulting in debilitating sequelae and disabilities that impact their quality of life and capacity to return to work or school. A new care model is needed for persons living with this complex and multi-systemic disease.

Objectives. To update the best-available evidence about care models for people living with Long COVID.

Design. Update of a living systematic review.

Method. We systematically searched nine electronic databases on October 5th and 7th 2021. Two independent reviewers screened titles, abstracts and full text. We included studies reporting on 1) people living with Long COVID and 2) proposing a specific care model. We extracted characteristic of studies, reporting of the care model implementation with the number of patients, clinical settings of care model, healthcare professions included in the care model, care model principles and care model components.

Results. In this update, we screened 1201 additional citations, read 65 full text and included 8 eligible articles reporting on international care models for Long COVID. The four main interfaces of our proposed patient pathway remain: coordination units to centrally receive referrals from both hospitalized and community-based patients, training of primary care teams to screen and support medical needs, integrated local multidisciplinary rehabilitation services and access to medical specialty clinics for advanced testing and diagnoses. We observe consistency for care model principles such as multidisciplinary teams and integrated care, and components such as standardized symptoms assessment and virtual care. The impact and costs of these care models are not yet reported.

Supplemental Information.

We identified 7 ongoing Canadian care models and patient partners shared their lived experience and perspectives, contextualizing what is known. Canadian care models differed in areas such as training of healthcare professionals, integration of multiple sites, and coverage of large geographical territories. Models leveraged nurse practitioners and general internal medicine specialists to bridge complex care needs across multiple specialties. Patients brought up concerns about fragmentation of care, inequitable access, and privatization of rehabilitation. They stressed the necessity for rapid, continued access to the latest evidence in practice to prevent harms and the important role of the family physician in care coordination.

Conclusion. Combining international evidence, contextualized Canadian initiatives and patient perspectives, a national public health initiative may be advisable to ensure sustainable support of provincial teams in their quest to support patients with Long COVID. This represents a unique opportunity to improve quality of care for all patients with complex chronic diseases in Canada.

Protocol Registration: CRD42021282266

Updated context

The following updated context on the evidence of Long COVID/post COVID-19 condition could potentially impact international understanding of care models.

Prevalence of Long COVID

We initially highlighted evidence from the Office for National Statistics (ONS) in the U.K. reporting that 14% of all COVID-19 cases would exhibit persistent symptoms at 12 weeks ¹. At scale for Canada, this would have estimated that more than 150K Canadians would be living with Long COVID. Since this report, the ONS have shown that approximately 40% of all people with Long COVID will continue living with sequelae for the duration of over 12 months ¹. This evidence mirrors the survival curves analyses from the REACT-2 study showing that close to half of patients with persistent symptoms at 4 weeks will naturally recover by week 12, but that the natural recovery curve plateaus by the 12th month ².

In November 2021, a systematic review by *Chen et al.*, reporting on 40 studies comprising 886,388 COVID-19 positive patients, estimated a global pooled prevalence of Long COVID at 43% of all cases (57% among patients hospitalized) ³. Reports from North America had the lowest pooled prevalence at 30%. Overall, they estimated that about 100M people had or are still living with Long COVID worldwide.

Canadian prevalence data are currently unavailable but scaling the lowest estimate from North America would mean that upward of 500K Canadians may need to seek care for Long COVID – about three times our previously proposed estimate.

The multi-systemic nature of Long COVID

The REACT-2 study highlighted the main possible clusters of symptoms for Long COVID with about 65% of their sample representing a fatigue-related cluster and 35% a breathlessness cluster ². A smaller study from *Twomey et al.* in Alberta found that the condition showed worse fatigue scores and impact on quality of life than most fatigue-related chronic illnesses among 213 patients with Long COVID ⁴. The authors also drew a clear parallel with myalgic encephalomyelitis, a post-infectious condition affecting 600K people in Canada and for which no cure is currently available ⁴. More than half of Long COVID patients exhibited the clinical diagnostic hallmark of post-exertional malaise ⁴.

This strengthens the evidence of the complex multi-systemic nature of Long COVID that severely impact patient lives. This poses a serious challenge to provincial healthcare organizations, as no evidence-based care model currently exist for these complex diseases in Canada.

Objectives

Our main objective was to update the best-available evidence about care models for people living with Long COVID. Additionally in this update, we offer a supplement that contextualized international evidence with Canadian initiatives and patient perspectives.

Methods

We performed the first update of the living systematic review following the Joanna Briggs Institute's Manual for Evidence Synthesis ⁵⁻¹¹ and report our findings according to the PRISMA guidelines ¹².

Literature Search

We systematically searched nine databases: MEDLINE, Embase, Web of Science, COVID-END, L-OVE, CDSR, WHO Ovid, PsycINFO and CINAHL. An experienced medical information specialist (Skidmore) developed and tested the search strategies through an iterative process in consultation with the review team. Another information specialist (Campbell) peer-reviewed the MEDLINE strategy with the PRESS Guideline ¹³. Using the multifile option as well as the deduping tool in Ovid, we searched Ovid MEDLINE®, including Epub Ahead of Print, In-Process & Other Non-Indexed Citations, and Embase Classic+Embase. We also searched Web of Science (Core Collection) and the Cochrane Database of Systematic Reviews. We completed a rapid grey literature search by scanning key healthcare organizations' websites (ex: NHS) to identify unpublished care models for Long Covid. We updated all the searches on October 5th and 7th, 2021.

The search strategy included terms related to 1) Long COVID and its currently known variation (e.g. post-Covid syndrome) and 2) Care models (e.g. clinics model, pathways). We used a mixture of controlled vocabulary (e.g., "COVID-19", "Long Term Adverse Effects", "Recovery of Function") and free-text terms (e.g., "long COVID", "longhaul", "chronic symptoms") and applied filters for care models. We did not apply any language restrictions. Updates include date restriction from the search date included in the previous report. See Appendix 2 for a copy of the search strategies as executed. We downloaded and deduped the records using EndNote 9.3.3 (Clarivate) and uploaded to DistillerSR (Evidence Partners).

Eligibility Criteria

Our inclusion criteria (PICO) were as followed:

Population:	People living with Long COVID (children and adults) or healthcare professionals managing Long COVID. We included all definitions of persistent symptoms of COVID-19 (e.g., post-COVID syndrome).
Intervention:	Care models (including pathways, trajectories, frameworks or structured clinics) to organize 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.

Study Selection

We used the same pilot-tested, standardized forms for titles & abstracts and full text screening. Study selection was conducted by pairs of two reviewers independently. Discrepancies were resolved by discussion or by a third senior reviewer. We conducted a pilot exercise with 10 citations for each phase.

Data Extraction

We used the same standardized form for data extraction. All data was extracted by one of two reviewers and a third reviewer verified all extracted data. Discrepancies were resolved by discussion or by a third senior reviewer. We extracted characteristics of studies (e.g. countries, study design, age group), targeted referral pathways (e.g. hospitalized, community), reporting of the care model implementation with the number of patients, clinical settings of care model (e.g. primary care), characteristics of the care model (ex: funding, staffing, etc.), healthcare professions included in the care models, care model principles (e.g. person-centred care), care model components (e.g. standardized symptoms assessment) and any collected outcomes.

Risk of Bias Assessment

We did not complete risk of bias assessment, most studies being conceptual papers.

Data Synthesis

We analyzed the extracted data using a traditional content analysis and added to the existing thematic analysis to classify emerging themes regarding best practices surrounding care models (see definition in Appendix 1). We continue to present our results in a narrative format.

Stakeholders' Engagement

Three knowledge users from the Alberta Health Services and one patient partner actively participated in the initial setting of this review (e.g. defining the research topic and objectives, data extraction and interpretation, reporting of findings). We further engaged with knowledge users from British Columbia and Quebec. Knowledge users received a regular update via email communications. All project contributors are listed on page 2 of this report.

Using this network of Long COVID collaborators facilitated by the COVID-END Network and the SPOR Evidence Alliance, we identified existing Long COVID care models that are currently being implemented in Canada. We asked stakeholders involved in the implementation of the care model to fill out a data extraction grid to collect the following information: province and location of the care model, type of model, description of the model, population targeted, care model principles, components, funding, costs, staffing, and outcomes. We also collected two testimonies from our patient partners to share their lived experience with Long COVID and their perspective of receiving care in Canada.

Results

Literature Search

In this first update, we identified an additional 1749 citations, screened 1201 titles and abstract, 65 full text and included 8 articles reporting on care models for Long COVID (Figure 1) ¹⁴⁻²¹.

Characteristics of the newly included studies

The 8 included studies present models from the Netherlands, France, Ireland, Canada, Hungary and China (Table 1). Four were descriptive studies of care model concepts, one was a literature review with a proposed model, one was a cross-sectional survey, and two studies were cohort studies. All studies reported on adult population. Six studies covered care models for post-hospitalized patients and two studies reported on care models for patients in the community. Only one study reported having implemented their care model in clinical settings. All studies included rehabilitation services, four integrated primary care, and four had a specialty care component.

Care Models Principles

Table 2 presents combined evidence from the initial search and the first update. We initially identified a total of 17 different principles. The update added only one additional principle (return to work). The five most common principles remain the same and include multidisciplinary teams (90%), integrated care (50%), continuity or coordination of care (50%), self-management (50%) and evidence-based care (35%).

Care Models' Components

Table 3 presents combined evidence from the initial search and the first update. We initially identified a total of 11 distinct care model components. No new component was found, thus the five most common components remain standardized symptoms assessment (95%), referral system (80%), follow-up system (75%), virtual care (70%), and home-based care (50%).

Healthcare Professionals and Medical Specialties Included in Care Models

We identified all healthcare professionals and medical specialties included in care models and combined evidence from the initial and updated search (Table 4). We initially found a total of 32 healthcare professionals and medical specialties proposed to staff Long COVID care models. No new medical specialty or healthcare professional was identified in the update. We divided specialties and professionals according to their care setting (i.e. rehabilitation, primary care and specialty care). For the review update, for rehabilitation staffing, the three most common professions were physiotherapists (80%), psychiatrists/psychologists (80%) and occupational therapists (60%). For primary care staffing, the three most common professions were social workers (60%), family physicians (55%) and nurses (50%). The most common medical specialties included pulmonary/respiratory (90%), cardiovascular (80%) and neurology (70%).

Impact and Costs

Similar to the initial report, none of the included studies in the update provided impact analysis or costs.

Discussion

The objective of this living systematic review was to provide the best-available evidence about care models for people living with Long COVID. In this first update, we found 8 additional care models that followed post-discharged patients and non-hospitalized Long COVID patients. In the first report, we discussed the probability that impact data may have been accessible from September 2021. Impact and costs of care models for Long COVID remain largely unknown.

We observe new trends in studies found by our search strategy update. *Bek et al.*, instead of a traditional clinic-based care model, presented a study protocol to assess four distinct aftercare pathways/trajectories following hospitalization, namely community-based rehabilitation, inpatient and outpatient medical rehabilitation, inpatient rehabilitation in skilled nursing facilities, and sheltered care (inpatient) ¹⁴. The French Society of Occupational Medicine Guidelines ¹⁵ proposed a care pathway to support return-to-work including in case of persistent symptoms following COVID-19. We identified two articles proposing specific care models for cardiovascular health ¹⁸ and nutritional care ¹⁶ following COVID-19.

Evidence gaps remain. Most care models are designed for hospitalized post-discharged patients and could not meet the needs of patients in the community afflicted by Long-COVID who present a different clinical profile ²². None to very little information is available regarding the role of key medical specialties (e.g. infectious disease and general internal medicine) or the place of key recovery steps (e.g., return to work) in these models. No care model addressed children's specific needs.

Limitations

Although we searched many databases and a few specific to COVID-19, some existing care models may have been missed or may have not been published or reported. To address this limitation, we established a national network of collaborators and stakeholders to identify any new care models for Long COVID outside of traditional publishing routes. We did not conduct a risk of bias appraisal as most included articles reported only descriptive and conceptual underpinnings of care models for Long COVID.

Conclusion

In the first update, the five most common principles included multidisciplinary teams, integrated care, continuity or coordination of care, self-management and evidence-based care. The five most common components included standardized symptom assessment, referral system, follow-up system, virtual care, and home-base care. For staffing rehabilitation, the three most common professions were physiotherapy, psychiatry/psychology and occupational therapy. For staffing primary care, the three most common professions were social work, family physicians and nursing. The most common medical specialties included pulmonary/respiratory, cardiovascular and neurology. Impact and costs of care models for Long COVID remain largely unknown.

Figure 1. PRISMA Flow Diagram

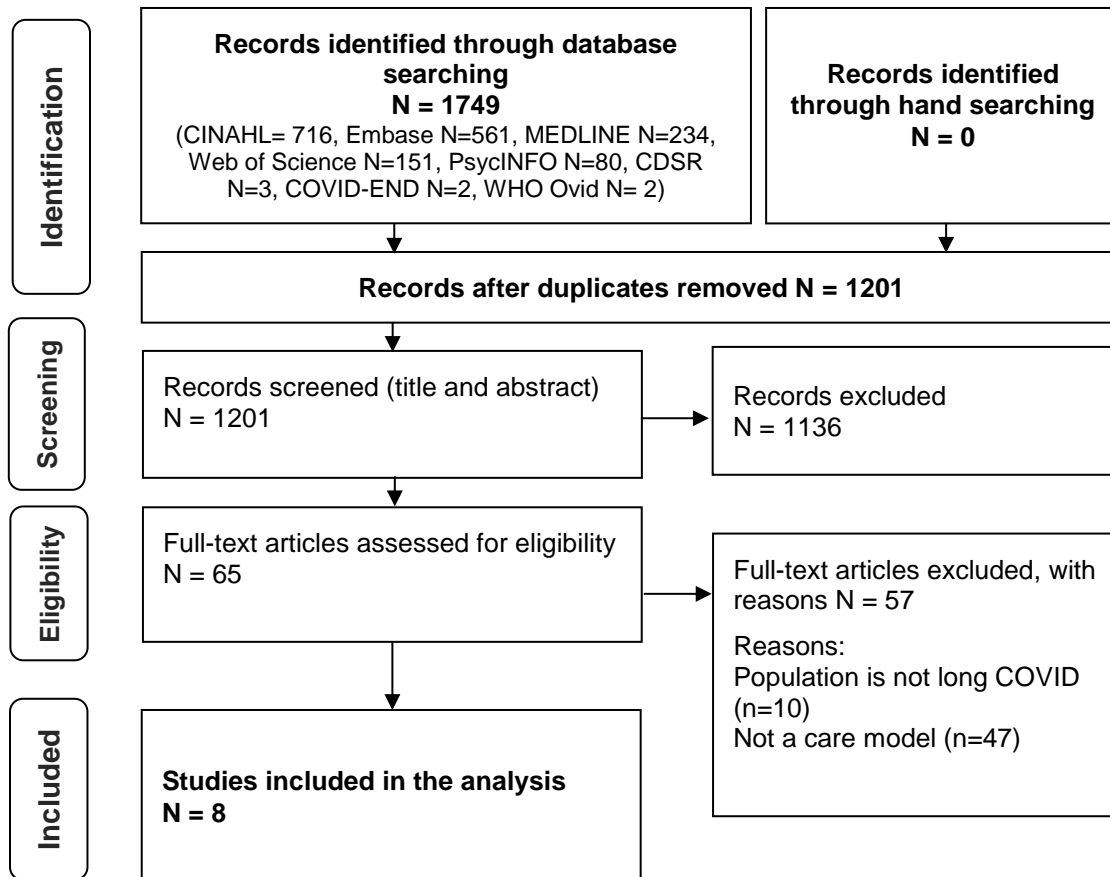


Table 1. Newly Included Study Characteristics

Author (year)	Country	Study design	Population	Type of patient	Model type	Setting
Bek (2021) ¹⁴	Netherlands	Primary Study, Cohort	Adults (18+)	Hospital or ICU - -	Theoric	- - Rehabilitation
Clin (2021) ¹⁵	France	Descriptive	Adults (18+)	- Community -	Theoric	Primary Care - Rehabilitation
Lawrence (2021) ¹⁶	United Kingdom	Primary Study, Cross-sectional	Adults (18+)	Hospital or ICU - -	Theoric	- Specialty Care Rehabilitation
O'Brien (2021) ¹⁷	Ireland	Descriptive	Adults (18+)	Hospital or ICU - -	Theoric	Primary Care Specialty Care Rehabilitation
Paterson (2021) ¹⁸	Canada	Descriptive	Adults (18+)	- Community -	Theoric	Primary Care Specialty Care Rehabilitation
Szekanecz (2021) ¹⁹	Hungary	Descriptive	Adults (18+)	Hospital or ICU - -	Theoric	Primary Care Specialty Care Rehabilitation
Vanichkachorn (2021) ²⁰	United States	Primary Study, Cohort	Adults (18+)	Hospital or ICU - -	Implemented	- - Rehabilitation
Yan (2021) ²¹	China	Literature review	Adults (18+)	Hospital or ICU - -	Theoric	- - Rehabilitation

Abbreviations: ICU: Intensive care unit

Table 2. Updated Care Model Principles

		JUNE 2021												NOV 2021									
		Santosh (2021)	Parkin (2021)	Gutenbrunner (2021)	Siso-Almirall (2021)	Brigham (2021)	Ladds (2021)	Singh (2020)	Pinto (2020)	Sivan (2020)	Nalbandian (2021)	NHS (2021)	Heightman (2021)	Bek (2021)	Clin (2021)	Lawrence (2021)	O'Brien (2021)	Paterson (2021)	Szekanecz (2021)	Vanichkachorn (2021)	Yan (2021)		
Principles	Principles																					TOTAL	
	Multidisciplinary teams													11 (92%)								7 (88%)	18 (90%)
	Integrated care													8 (67%)								2 (25%)	10 (50%)
	Continuity or coordination of care													7 (58%)								3 (38%)	10 (50%)
	Self-management													7 (58%)								3 (38%)	10 (50%)
	Evidence-based care													7 (58%)								0 (0%)	7 (35%)
	Shared care													5 (42%)								2 (25%)	7 (35%)
	Patient education													6 (50%)								0 (0%)	6 (30%)
	Case management													5 (42%)								1 (13%)	6 (30%)
	Patient-centered care													5 (42%)								1 (13%)	6 (30%)
	Training for healthcare professionals													4 (33%)								2 (25%)	6 (30%)
	One-stop-shop													4 (33%)								1 (13%)	5 (25%)
	PROMs evaluation													4 (33%)								1 (13%)	5 (25%)
	Research Partnership													4 (33%)								0 (0%)	4 (20%)
	Community of practice													3 (25%)								1 (13%)	4 (20%)
	Focusing on return to work (new principle)													0 (0%)								2 (25%)	2 (10%)
	Patient navigator													2 (17%)								0 (0%)	2 (10%)
	Shared decision making													1 (8%)								0 (0%)	1 (5%)
Asynchronous care													1 (8%)								0 (0%)	1 (5%)	

Abbreviations: PROMs: Patient-reported outcome measures.

Table 3. Updated Care Model Components

Components	JUNE 2021												NOV 2021								TOTAL									
	Santosh (2021)	Parkin (2021)	Gutenbrunner (2021)	Siso-Almirall (2021)	Brigham (2021)	Ladds (2021)	Singh (2020)	Pinto (2020)	Sivan (2020)	Nalbandian (2021)	NHS (2021)	Heightman (2021)	Bek (2021)	Clin (2021)	Lawrence (2021)	O'Brien (2021)	Paterson (2021)	Szekanez (2021)	Vanichkachom (2021)	Yan (2021)										
Standardized symptoms assessment																					11 (92%)								8 (100%)	19 (95%)
Referral system																						10 (83%)							6 (75%)	16 (80%)
Follow-up system																						10 (83%)							5 (63%)	15 (75%)
Telehealth / virtual care																						10 (83%)							4 (50%)	14 (70%)
Home-based care																						7 (58%)							3 (38%)	10 (50%)
Social determinants assessment																						6 (50%)							4 (50%)	10 (50%)
Patient support groups																						5 (42%)							1 (13%)	6 (30%)
Clinical information system																						4 (33%)							2 (25%)	6 (30%)
Triage system																						4 (33%)							1 (13%)	5 (25%)
Quality improvement																						3 (25%)							0 (0%)	3 (15%)
Patient needs assessments																						2 (17%)							0 (0%)	2 (10%)



Table 4. Healthcare Professionals and Medical Specialties Included in Care Models

		JUNE 2021										NOV 2021											
		Santosh (2021)	Parkin (2021)	Gutenbrunner (2021)	Siso-Almirall (2021)	Brigham (2021)	Ladds (2021)	Singh (2020)	Pinto (2020)	Sivan (2020)	Nalbandian (2021)	NHS (2021)	Heightman (2021)	Bek (2021)	Clin (2021)	Lawrence (2021)	O'Brien (2021)	Paterson (2021)	Szekanecz (2021)	Vanichkachom (2021)	Yan (2021)		TOTAL
Rehabilitation	Physiotherapy																					6 (75%)	16 (80%)
	Psychiatry / Psychology																					6 (75%)	16 (80%)
	Occupational therapy																					3 (38%)	12 (60%)
	Nutrition																					3 (38%)	12 (60%)
	Speech & Language therapy																					0 (0%)	6 (30%)
	Rehabilitation Medicine																					2 (25%)	5 (25%)
	Neuropsychiatry																					0 (0%)	3 (15%)
Primary Care	Social work																					3 (38%)	12 (60%)
	Family medicine																					4 (50%)	11 (55%)
	Nursing																					5 (63%)	10 (50%)
	Pharmacy																					0 (0%)	3 (15%)
Specialty care	Pulmonary/Respiratory																					6 (75%)	18 (90%)
	Cardiovascular																					5 (63%)	16 (80%)
	Neurology																					5 (63%)	14 (70%)
	Nephrology																					2 (25%)	5 (25%)
	Hepatology																					0 (0%)	4 (20%)
	Otolaryngology																					0 (0%)	4 (20%)
	Dermatology																					0 (0%)	4 (20%)
	Hematology																					1 (13%)	4 (20%)
	Endocrinology / Metabolism																					1 (13%)	4 (20%)
	Infectious disease																					1 (13%)	4 (20%)
	Gastroenterology																					1 (13%)	3 (15%)
	Rheumatology																					0 (0%)	2 (10%)
	Immunology																					0 (0%)	2 (10%)
	Pediatrics																					0 (0%)	2 (10%)
	Geriatrics																					0 (0%)	1 (5%)
	Integrative medicine																					0 (0%)	1 (5%)
	Emergency medicine																					0 (0%)	1 (5%)
	Pathway coordinators																					0 (0%)	1 (5%)
	Radiology																					0 (0%)	1 (5%)
	Community health																					0 (0%)	1 (5%)
	Intensive care																					0 (0%)	1 (5%)

Supplement 1 – Ongoing Canadian Care Models

This section does not represent an extensive list of all Long COVID services in Canada. We asked our network of collaborators on Long COVID in Canada to report on their implemented and ongoing care models. Using a form based on our data extraction document, they provided a summary of seven Canadian care models across three provinces, reported here in the form of vignettes.

Key points

- Three models were developed in Alberta, one learning health system (four clinics) was developed in British Columbia, two primary care rehabilitation models and speciality clinic were developed in Quebec and one cross-province private rehabilitation network is presented.
- The models include four main features: 1) Coordination units to centrally receive referrals from both hospitalized and community-based patients with standardized assessments, 2) Training of primary care teams to screen and support medical needs, 3) Integrated local organization of multidisciplinary rehabilitation teams, and 4) Access to medical specialty clinics for advanced testing and diagnoses.
- Most models used a “one-stop-shop” design (i.e., specialty clinic model) and leverage virtual strategies to increase reach to rural regions, creating a “hub-and-spoke” structure.
- Canadian care model principles and components mirrored international models identified from our review such as coordination of care, standardized symptoms assessment, virtual care and patient education strategies.
- Canadian care models innovated in areas such as training of healthcare professionals, integration of multiple sites, coverage of large geographical territories, and efficiency of care process to reduce delays. Models leveraged nurse practitioners and general internal medicine specialists to bridge complex care needs across multiple specialties.
- Some Canadian models relied on public-private partnerships, most importantly for rehabilitation services. This may cause inequalities in care access. A private rehabilitation network scaled up a multidisciplinary service model across 85 existing rehabilitation clinics in five provinces.
- The longest running models were able to assess and care for close to or above 500 new patients within one year of operation. British Columbia’s interdisciplinary care network with four clinics reached 1625 patients. The combined expertise of the leading provinces is above 3000 patients. Specialty clinics currently average over 1000 patients per waitlist.
- Models were staffed with 6 to 9 full-time equivalent (FTE) multidisciplinary healthcare professionals, indicating that an important workforce is required to run these services.
- Leading provinces (Alberta and British Columbia) set up large taskforces with hundreds of stakeholders to organize care. Network funding of up to \$1.8M per province was required for these initiatives.

#1 University of Alberta Hospital/Kaye Edmonton Clinic (UAH/KEC) Post COVID-19 Clinic

Province, location: Alberta, Edmonton.

Type of model: Speciality care and rehabilitation.

Description: The University of Alberta Hospital/Kaye Edmonton Clinic (UAH/KEC) Post COVID-19 Clinic was established in June 2020 by a team of pulmonologists from the University of Alberta. The clinic currently accepts all adult (aged >18 years) patients who are persistently symptomatic or suffering complications related to COVID-19 infection at 12 weeks' from diagnosis of acute infection. The clinic operates 5 half days per week, is staffed by 7 physicians and supported by a social worker, dietician and has RN support. The clinic has direct referral access to neurology, cardiology, rheumatology, immunology and hematology clinics as well as referral access to a dedicated physiotherapy program. All patients undergo standardized testing (imaging, lung function and labs) as per clinic protocol prior to their first visit. Health related quality of life questionnaires and symptom scoring tools are also completed routinely before each clinic visit. There is dedicated admin support including entry of demographics and results into a REDCap database. Physicians also enter clinical data into the database and the questionnaire results are also collected here. The clinic has mainly been running virtually due to pandemic restrictions.

From January 2022, the clinic is anticipated to change to the Edmonton Zone Long COVID Interprofessional Outpatient Program (Long COVID IPOP). The clinic model will change to include a triage clinic operated by a nurse practitioner (NP), supported by a RN to direct ongoing patient care to a physician or NP led review or directly to rehabilitation dependant on patient need. There will be ongoing dedicated support from allied health professionals and a relationship with community rehabilitation services. The remainder of this document's questions will be answered based on the anticipated IPOP model of care.

Population targeted: Adults who had COVID-19 in the community and post-discharged patients

Care model principles

<input checked="" type="checkbox"/> Patient-centered care	<input checked="" type="checkbox"/> Shared decision making	<input checked="" type="checkbox"/> Patient education
<input checked="" type="checkbox"/> Self-management	<input checked="" type="checkbox"/> Integrated care	<input checked="" type="checkbox"/> Multidisciplinary teams
<input checked="" type="checkbox"/> Continuity or coordination of care	<input checked="" type="checkbox"/> Shared care	<input checked="" type="checkbox"/> Case management
<input type="checkbox"/> Patient navigator	<input checked="" type="checkbox"/> One-stop-shop	<input type="checkbox"/> Asynchronous care
<input checked="" type="checkbox"/> Evidence-based care	<input type="checkbox"/> Community of practice	<input checked="" type="checkbox"/> Quality improvement
<input checked="" type="checkbox"/> PROMs evaluation	<input type="checkbox"/> Training for healthcare professionals	
<input type="checkbox"/> Other (Specify):		

Care model components

<input type="checkbox"/> Decision support for healthcare professionals	<input checked="" type="checkbox"/> Clinical information system
<input checked="" type="checkbox"/> Triage system	<input checked="" type="checkbox"/> Referral system
<input checked="" type="checkbox"/> Standardized symptoms assessment/screening	<input checked="" type="checkbox"/> Social determinants assessment
<input checked="" type="checkbox"/> Follow-up system	<input type="checkbox"/> Patient support groups
<input type="checkbox"/> Home-based care	<input checked="" type="checkbox"/> Telehealth / virtual care
<input type="checkbox"/> Other (Specify):	

Care model funding / costs / staffing

1.0FTE NP, 1.0FTE RN, PTII/OTII (Clinical and Project Manager role) 1.5FTE, Pharmacy 0.2 FTE, Respiratory Therapist 1.0FTE, Social Work 1.0FTE, SLP 1.0 FTE (in kind through existing AHS programs), Psychology 1.0 (in kind through existing AHS programs), Admin Support 1.0 FTE.

Any outcomes to share?

From our current UAH/KEC Post COVID Clinic, we have reviewed 493 new patients and had 389 follow-up visits to date. Most frequently encountered symptoms include neurocognitive, pulmonary as well as myalgias and we have observed impaired health related quality of life. We have published some of our outcomes to date in manuscript form (Lam et al Respir Research 2021. 22(1):222 Exertional intolerance and dyspnea with preserved lung function: an emerging long COVID phenotype?; COVID-19 hospitalization is associated with pulmonary/diffusion abnormalities but not post acute sequelae of COVID-19 severity; Lam et al. JIM in revision) and abstract form (American Thoracic Society 2021 Smith et al. Non-hospitalized patients with acute COVID-19 suffer long-term symptoms).

#2 Calgary Zone Long COVID Inter-Professional Outpatient Program (Long COVID IPOP)

Province, location: Alberta, Calgary

Type of model: Speciality care and rehabilitation.

Description: The Calgary Zone Long COVID Inter-Professional Outpatient Program (Long COVID IPOP) will bring together specialists and allied health professionals from community accessible rehabilitation to provide wrap-around care for the more severe subset of post COVID patients. This integrated program will provide a hybrid of virtual and in-person care depending on patients' needs. Digital remote patient monitoring will be utilized when required. Patient will be stratified into two groups: Those requiring medical care including rehabilitation versus those that only require rehabilitation. An NP will be the main provider of care with support from a roster of General Internal Medicine Physicians.

Population targeted: Adults with ongoing symptoms 12 weeks post-COVID

Care model principles

<input checked="" type="checkbox"/> Patient-centered care	<input checked="" type="checkbox"/> Shared decision making	<input checked="" type="checkbox"/> Patient education
<input checked="" type="checkbox"/> Self-management	<input checked="" type="checkbox"/> Integrated care	<input checked="" type="checkbox"/> Multidisciplinary teams
<input checked="" type="checkbox"/> Continuity or coordination of care	<input checked="" type="checkbox"/> Shared care	<input checked="" type="checkbox"/> Case management
<input type="checkbox"/> Patient navigator	<input checked="" type="checkbox"/> One-stop-shop	<input type="checkbox"/> Asynchronous care
<input checked="" type="checkbox"/> Evidence-based care	<input type="checkbox"/> Community of practice	<input type="checkbox"/> Quality improvement
<input checked="" type="checkbox"/> PROMs evaluation	<input type="checkbox"/> Training for healthcare professionals	
<input type="checkbox"/> Other (Specify):		

Care model components

<input type="checkbox"/> Decision support for healthcare professionals	<input checked="" type="checkbox"/> Clinical information system
<input checked="" type="checkbox"/> Triage system	<input checked="" type="checkbox"/> Referral system
<input checked="" type="checkbox"/> Standardized symptoms assessment/screening	<input checked="" type="checkbox"/> Social determinants assessment
<input checked="" type="checkbox"/> Follow-up system	<input type="checkbox"/> Patient support groups
<input type="checkbox"/> Home-based care	<input checked="" type="checkbox"/> Telehealth / virtual care
<input type="checkbox"/> Other (Specify):	

Care model funding / costs / staffing

1.0 NP, 1.0 RN, 1.0 PT, 1.0 OT, 1.0 RT, 1.0 SW, in kind mental health support, 0.2 Pharmacist, 0.1 FTE Medical Director.

#3 Alberta Health Services Provincial Post COVID Rehabilitation Response Framework

Province, location: Alberta.

Type of model: Primary care, speciality care, rehabilitation.

Description: Alberta Health Services developed the Provincial Post COVID Rehabilitation Response Framework (PCRF) as the overarching approach to standardized identification, assessment, referral and management of the rehabilitation needs of patients recovering from COVID-19, including those with Long COVID. The Alberta PCRF long COVID strategy uses multidisciplinary teams to support clients with physiotherapists, occupational therapists, dieticians, psychologists, specialist physicians, family doctors/nurse practitioners and clinic nurses to support patients recovering from COVID-19 across the province. The PCRF includes specific pathways, tools, and self-management resources to support patients recovering from COVID-19 across the care continuum. Alberta Health Services offers a combination of care ranging from self-management to intensive management based on an adapted Post-COVID Functional Scale (PCFS) score, a core assessment tool included in the PCRF. The hallmark of the PCRF is that clinicians, support staff and/or patients complete the PCFS score at points of transition to identify the level of functional impairment, and the corresponding level of rehabilitation required. Self-management tools are available online for clients to access at any time for all patients, but especially those with PCFS Grade 1 or 2. Clinicians are able to refer their patients to one of two specialty Long Covid clinics that address symptoms for clients with a PCFS Grade 3 or 4. These clinics support larger systemic symptoms such as respiratory, pulmonary, and cardiac related symptoms. These clinics service the northern and southern sectors of the province, and mobilize virtual platforms to extend their reach.

Population targeted: Adults with ongoing symptoms post-COVID, post-discharged from hospital, intensive care unit or in the community.

Care model principles

<input checked="" type="checkbox"/> Patient-centered care	<input type="checkbox"/> Shared decision making	<input checked="" type="checkbox"/> Patient education
<input checked="" type="checkbox"/> Self-management	<input checked="" type="checkbox"/> Integrated care	<input checked="" type="checkbox"/> Multidisciplinary teams
<input checked="" type="checkbox"/> Continuity or coordination of care	<input type="checkbox"/> Shared care	<input type="checkbox"/> Case management
<input type="checkbox"/> Patient navigator	<input type="checkbox"/> One-stop-shop	<input type="checkbox"/> Asynchronous care
<input checked="" type="checkbox"/> Evidence-based care	<input type="checkbox"/> Community of practice	<input checked="" type="checkbox"/> Quality improvement
<input type="checkbox"/> PROMs evaluation	<input checked="" type="checkbox"/> Training for healthcare professionals	
<input type="checkbox"/> Other (Specify):		

Care model components

Care Models for Long COVID

<input checked="" type="checkbox"/> Decision support for healthcare professionals	<input type="checkbox"/> Clinical information system
<input checked="" type="checkbox"/> Triage system	<input checked="" type="checkbox"/> Referral system
<input checked="" type="checkbox"/> Standardized symptoms assessment/screening	<input type="checkbox"/> Social determinants assessment
<input checked="" type="checkbox"/> Follow-up system	<input checked="" type="checkbox"/> Patient support groups
<input type="checkbox"/> Home-based care	<input checked="" type="checkbox"/> Telehealth / virtual care
<input type="checkbox"/> Other (Specify):	

Care model funding / costs / staffing

The PCRF was designed to be cost-neutral. No additional staffing costs were provided for rehabilitation. However, in-kind support was proffered by the system to incorporate the tools and resources, and to translate the self-management resources into 11 languages for accessibility. Communication services were also offered in-kind by Alberta Health Services to help raise awareness. The Rehabilitation Advice Line instituted 7-day post-discharge calls to all patients discharged from hospital due to COVID-19; this call includes administration of the PCFS. The implementation of the PCRF has just begun in earnest, other funding, cost and staffing implications may arise or evolve during this implementation process.

Any outcomes to share?

The Neurosciences, Rehabilitation & Vision Strategic Clinical Network (NRV SCN) at Alberta Health Services has received federal funding to support the evaluation of the year-one implementation strategy of the PCRF in Alberta. This study is just starting, so while we do not have outcomes to share at this time, we will by the end of 2022. Also, more qualitatively, the PCRF involved 3 taskforces with 200+ stakeholders coming together across disciplines and the care continuum. An outcome of value is the level of engagement and commitment of this community to develop these resources, tools and implementation strategy to support the growing population of patients recovering from COVID-19 in Alberta.

#4 Post-COVID-19 Interdisciplinary Clinical Care Network – British Columbia

Province, location: British Columbia; 4 locations in urban centres with capacity for virtual care for those living in other regions.

Type of model: Primary care, speciality care, rehabilitation

Description: The Post-COVID-19 Interdisciplinary Clinical Care Network is a provincial initiative to coordinate clinical care and research within a learning health system. It is comprised of 4 clinics, with capacity for in-person or virtual attendance for patients with persistent symptoms of at least 3 months post-COVID-19. Educational resources are available online and can be accessed by anyone, regardless of attendance at the clinic(s). Patients are referred posthospitalization or via their family doctor. Intake into the network is standardized through a central triage team and interdisciplinary care (General Internal Medicine, nursing, physiotherapy, occupational therapy and social work) is delivered at the local clinic. Standardized assessment and follow up at 3, 6, 12 and 18 months includes clinical care and access to self-registration for online modules, group education sessions, and 1:1 therapy as needed. Referral to specialist care and diagnostics is enabled as needed. A formal evaluation of patient experience is underway. A centralized registry enables collection of standardized questionnaires, lab work, imaging etc. Education for health care professionals is provided through a ongoing series of webinars. A biobank is integrated into the Network. Research is embedded (research assistants within the clinics) with transparent processes established for review of proposals to access patients and data. Patients are engaged in the design, evaluation and governance of the Network.

Population targeted: Adults who had COVID-19 in the community (referred by GPs) and post-discharged patients.

Care model principles

<input checked="" type="checkbox"/> Patient-centered care	<input checked="" type="checkbox"/> Shared decision making	<input checked="" type="checkbox"/> Patient education
<input checked="" type="checkbox"/> Self-management	<input checked="" type="checkbox"/> Integrated care	<input checked="" type="checkbox"/> Multidisciplinary teams
<input checked="" type="checkbox"/> Continuity or coordination of care	<input checked="" type="checkbox"/> Shared care	<input type="checkbox"/> Case management
<input type="checkbox"/> Patient navigator	<input checked="" type="checkbox"/> One-stop-shop	<input type="checkbox"/> Asynchronous care
<input checked="" type="checkbox"/> Evidence-based care	<input checked="" type="checkbox"/> Community of practice	<input checked="" type="checkbox"/> Quality improvement
<input checked="" type="checkbox"/> PROMs evaluation	<input checked="" type="checkbox"/> Training for healthcare professionals	
<input type="checkbox"/> Other (Specify):		

Care model components

<input checked="" type="checkbox"/> Decision support for healthcare professionals	<input checked="" type="checkbox"/> Clinical information system
<input checked="" type="checkbox"/> Triage system	<input checked="" type="checkbox"/> Referral system
<input checked="" type="checkbox"/> Standardized symptoms assessment/screening	<input type="checkbox"/> Social determinants assessment
<input checked="" type="checkbox"/> Follow-up system	<input type="checkbox"/> Patient support groups
<input type="checkbox"/> Home-based care	<input checked="" type="checkbox"/> Telehealth / virtual care
<input type="checkbox"/> Other (Specify):	

Care model funding / costs / staffing

Network funding is provided by the Provincial Health Services Authority (1.8 M) in conjunction with the Ministry of Health. Clinic operations are funded through local health authorities. Research funding is enabled through grants. Clinic physicians (General Internal Medicine) are compensated through Medical Services Plan (MSP). Staffing in the clinics include unit clerks, nursing, physiotherapy, occupational therapy, social work and research assistants (FTE for each clinic is determined by local health authority). The Network funding supports a Medical Lead, Program Manager, Clinical Nurse Specialist, Administrative Assistant, Research Manager, Research Scholars, Statistician/Data Analyst, Epidemiologist, KT/Communications Lead and Coordinator, as well as the central triage team (clerks and nurses).

Any outcomes to share?

1. From inception to Nov 15th:

- a. Over 30,000 visits (21,000 unique visits) to the website
- b. Number of patients referred: 3666, 2653 met criteria
- c. Number of patients seen: 1625
- d. Number of patients (active registrants) on waitlist: 1188
- e. Avg number of visits per person: 1.5
- f. % of visits in-person vs virtual: 60.09% in-person; 39.91% are telephone/video conference
- g. Patient reported outcomes at 3 months (for cohort to May 4 2021): 25% have difficulty with problem solving, 40-50% SOB on walking up hill or stairs, 15% SOB with minimal activities, 15-20% mood disorders, 60% fatigue that interferes with life.

2. Initial clinical data to Sept 5, 2021:

Clinical & lab data at 3 months (for cohort to May 4 2021):

At 3 months post COVID-19 infection, there are significant differences in clinical and lab characteristics

Variable	Hospitalized N=315	Not hospitalized N=283	P-value (Wilcoxon/Chi-square)
Age	62 [49, 72]	44 [36, 54]	<0.0001*
Sex F	43%	63%	<0.0001*
eGFR	86 [63, 99]	95 [79, 106]	<0.0001*
CRP	4.2 [1.2, 16.8]	1.2 [0.6, 3.6]	<0.0001*
Troponin I	0.35 [0.02, 6.00]	3 [0.02, 6.00]	0.4812
Troponin T	11.5 [7, 18]	5 [5, 6]	<0.0001*
Pro BNP	22 [12, 51]	11 [10, 18]	<0.0001*
Ferritin	107.5 [52, 251]	72 [38, 135]	<0.0001*
Hgb	132 [112, 141]	138 [130, 147]	<0.0001*
ALK_P	79 [64, 104]	75 [60.5, 89.5]	0.0011*
ALT	29 [19, 41]	22 [16, 34]	<0.0001*
AST	24 [19, 35]	21 [17, 26]	0.0001*
GGT	31 [18, 59]	17 [12, 30]	<0.0001*
LDH	197 [170, 242]	168 [150, 193]	<0.0001*
TBILI	8 [6, 12]	7 [5, 10]	0.0706

#5 Co-Vie Multidisciplinary Team – CISSMO

Province, location: Québec, Montérégie (one administrative region).

Type of model: Public-private partnership model of telerehabilitation services and primary care.

Description: The Centre Intégré de Santé et de Services Sociaux de la Montérégie-Ouest (CISSMO) has set up an interdisciplinary team to support people with Long COVID. This dedicated and specialized team is composed of health professionals employed by the CISSMO, but also includes physiotherapists and occupational therapists from ten private clinics with which a partnership has been established.

Population targeted: Adults who had COVID-19 in the community and post-discharged patients.

Healthcare domains or profession targeted by the model:

<input type="checkbox"/> Pulmonary/Respiratory	<input type="checkbox"/> Cardiovascular	<input type="checkbox"/> Neurology
<input type="checkbox"/> Psychiatry/Psychology	<input checked="" type="checkbox"/> Neuropsychiatry	<input type="checkbox"/> Hematology
<input type="checkbox"/> Hepatology	<input type="checkbox"/> Nephrology	<input type="checkbox"/> Gastroenterology
<input type="checkbox"/> Endocrinology/Metabolism	<input type="checkbox"/> Otolaryngology	<input type="checkbox"/> Rheumatology
<input type="checkbox"/> Immunology	<input type="checkbox"/> Dermatology	<input checked="" type="checkbox"/> Physiotherapy
<input type="checkbox"/> Kinesiology	<input checked="" type="checkbox"/> Occupational therapy	<input type="checkbox"/> Pediatrics
<input checked="" type="checkbox"/> Primary care	<input checked="" type="checkbox"/> Nutrition	<input checked="" type="checkbox"/> Nursing
<input checked="" type="checkbox"/> Social Work	<input type="checkbox"/> Other:	

Care model principles

<input checked="" type="checkbox"/> Patient-centered care	<input type="checkbox"/> Shared decision making	<input checked="" type="checkbox"/> Patient education
<input checked="" type="checkbox"/> Self-management	<input type="checkbox"/> Integrated care	<input checked="" type="checkbox"/> Multidisciplinary teams
<input checked="" type="checkbox"/> Continuity or coordination of care	<input type="checkbox"/> Shared care	<input type="checkbox"/> Case management
<input type="checkbox"/> Patient navigator	<input type="checkbox"/> One-stop-shop	<input type="checkbox"/> Asynchronous care
<input type="checkbox"/> Evidence-based care	<input checked="" type="checkbox"/> Community of practice	<input type="checkbox"/> Quality improvement
<input type="checkbox"/> PROMs evaluation	<input checked="" type="checkbox"/> Training for healthcare professionals	
<input checked="" type="checkbox"/> Other (Specify): Research partnership		

Care model components

<input type="checkbox"/> Decision support for healthcare professionals	<input type="checkbox"/> Clinical information system
<input checked="" type="checkbox"/> Triage system	<input checked="" type="checkbox"/> Referral system
<input checked="" type="checkbox"/> Standardized symptoms assessment/screening	<input checked="" type="checkbox"/> Social determinants assessment

<input type="checkbox"/> Follow-up system	<input checked="" type="checkbox"/> Patient support groups
<input type="checkbox"/> Home-based care	<input checked="" type="checkbox"/> Telehealth / virtual care
<input type="checkbox"/> Other (Specify):	

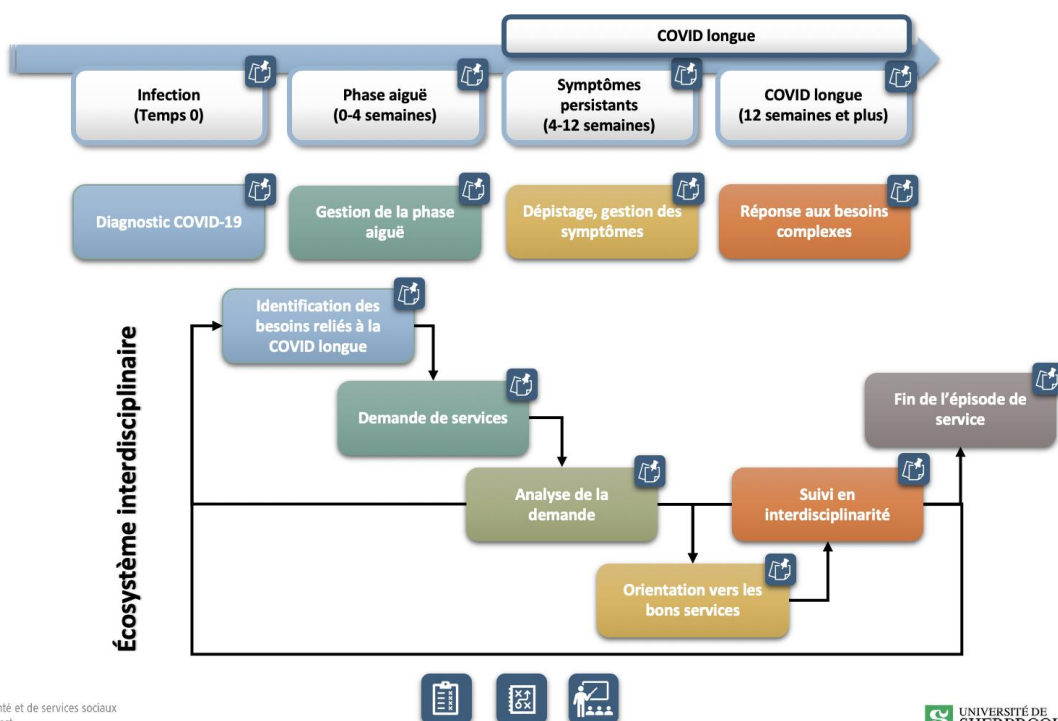
Care model funding / costs / staffing

Public-private partnership
Staff: clinical coordinators, social worker, administrative agent, physiotherapist, occupational therapist, and others
Planned expenditures (Year 1): \$1.4 million
Current expenditures (October 2021): \$140k

Any outcomes to share?

Not reported

Vue d'ensemble des trajectoires



#6 Post COVID Speciality Clinic – Sherbrooke

Province, location: Quebec, Sherbrooke

Type of model: Speciality care and rehabilitation.

Description: Speciality care: Dr Piché sees patients referred to him for Long COVID by any doctors in the province of Quebec. He meets his patients in face-to-face appointment at Hôtel Dieu Hospital in Sherbrooke, where he assesses and prescribes the tests and medications he deems relevant. He may also support some patients in their return-to-work process. His services are offered through the public health services in Quebec. Dr Piché refers patients with rehabilitation needs to one of the two private practice clinics affiliated (Clinique Universitaire de Réadaptation de l'Estrie (CURE), Sherbrooke, rehabilitation cooperative; ISO-Santé, Sherbrooke, private practice rehabilitation clinic).

Primary care rehabilitation: The CURE and ISO-Santé clinics also take self-referred patients, as well as referral from other physicians in the province. The rehabilitation care offered (individual physiotherapy and occupational therapy (group or individual)) is available face-to-face or virtually depending on the patient's location (services offered without territorial limits in Quebec). Both rehabilitation clinics have internal inter-disciplinary communication systems (physiotherapy and occupational therapy). The CURE for example has a system of computerized notes which are centralized between the two disciplines. In addition, an effort is made to communicate as systematically as possible to the family physicians or to Dr. Piché's clinic when patients have follow-up appointments.

An information transmission system has also been set up between Dr. Piché's specialized clinic and the private clinics when the patients consent. For example, Dr. Piché forwards a list of impairments and the relevant tests passed to the rehabilitation team with his referrals, so that clinics can request a file transfer. On the other hand, rehabilitation clinics pass their evaluation, treatment plan and therapeutic goals to Dr. Piché, as well as any questions they may have in shared files. Finally, CURE offers mentoring and coaching services (knowledge mobilization) for clinical settings that have training or support needs for the rehabilitation care of Long COVID patients.

Population targeted: Individuals of any age who had COVID-19 in the community and post-discharged patients.

Care model principles

<input checked="" type="checkbox"/> Patient-centered care	<input type="checkbox"/> Shared decision making	<input checked="" type="checkbox"/> Patient education
<input checked="" type="checkbox"/> Self-management	<input type="checkbox"/> Integrated care	<input checked="" type="checkbox"/> Multidisciplinary teams
<input type="checkbox"/> Continuity or coordination of care	<input checked="" type="checkbox"/> Shared care	<input type="checkbox"/> Case management
<input type="checkbox"/> Patient navigator	<input type="checkbox"/> One-stop-shop	<input type="checkbox"/> Asynchronous care
<input checked="" type="checkbox"/> Evidence-based care	<input checked="" type="checkbox"/> Community of practice	<input type="checkbox"/> Quality improvement

<input type="checkbox"/> PROMs evaluation	<input checked="" type="checkbox"/> Training for healthcare professionals	
<input type="checkbox"/> Other (Specify):		

Care model components

<input checked="" type="checkbox"/> Decision support for healthcare professionals	<input type="checkbox"/> Clinical information system
<input checked="" type="checkbox"/> Triage system	<input checked="" type="checkbox"/> Referral system
<input checked="" type="checkbox"/> Standardized symptoms assessment/screening	<input checked="" type="checkbox"/> Social determinants assessment
<input checked="" type="checkbox"/> Follow-up system	<input checked="" type="checkbox"/> Patient support groups
<input type="checkbox"/> Home-based care	<input checked="" type="checkbox"/> Telehealth / virtual care
<input type="checkbox"/> Other (Specify):	

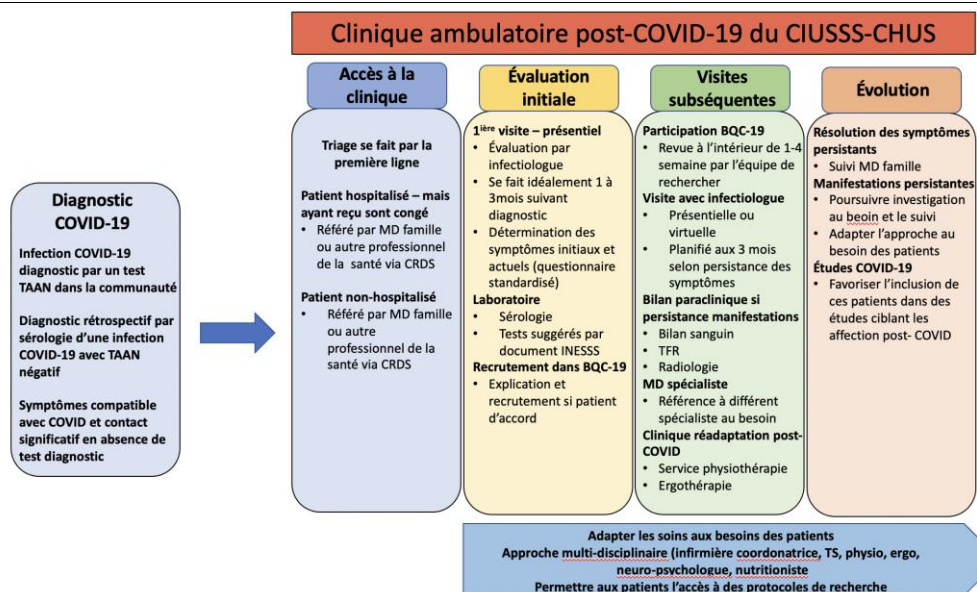
Care model funding / costs / staffing

Speciality care: Dr Piché's team from the CIUSSS (1.0 FTE research coordinator, 1.0 FTE clinical nurse); All services all paid through the public health insurance (RAMQ)

Primary rehabilitation care: ISO-Santé is a private practice care, so patients or their insurance must pay for their care (OT and PT); CURE is a cooperative, so if patients don't have an insurance, a lower price is available for their PT/OT services; if the patient is insured, a typical private practice price (similar to ISO-Santé) is available.

Staffing: CURE: 1.0 FTE PT (with interns), 3.0 FTE OT

Staffing: ISO-Santé: 2 PT, 3 OT.



#7 Post COVID Rehab & Recovery Programs/Pathways – Lifemark Health Group

Province, location: British Columbia, Prairies, Ontario, Quebec, Atlantic.

Type of model: Rehabilitation.

Description: This private rehabilitation care model from Lifemark Health Group is composed of three programs: a COVID-related wellness program for individuals that may or may not have had a COVID diagnosis but need mental health support, a virtual post-COVID program to support patients transitioning from the hospital to the community, and an individualized post-COVID rehabilitation program using a case management and multidisciplinary care approach, with multiple care trajectories. Rehabilitation programs from Lifemark are provided in 85 clinics across multiple provinces (BC=4, Qc=5, Prairies=9, Atlantic n=6, Ontario n=61).

Population targeted: Adults who had COVID-19 in the community and post-discharged patients.

Healthcare domains or profession targeted by the model:

<input checked="" type="checkbox"/> Pulmonary/Respiratory	<input checked="" type="checkbox"/> Cardiovascular	<input checked="" type="checkbox"/> Neurology
<input checked="" type="checkbox"/> Psychiatry/Psychology	<input type="checkbox"/> Hematology	<input type="checkbox"/> Hepatology
<input type="checkbox"/> Nephrology	<input type="checkbox"/> Gastroenterology	<input type="checkbox"/> Endocrinology/Metabolism
<input type="checkbox"/> Otolaryngology	<input type="checkbox"/> Rheumatology	<input type="checkbox"/> Immunology
<input type="checkbox"/> Dermatology	<input checked="" type="checkbox"/> Physiotherapy	<input checked="" type="checkbox"/> Kinesiology
<input checked="" type="checkbox"/> Occupational therapy	<input type="checkbox"/> Pediatrics	<input type="checkbox"/> Primary care
<input checked="" type="checkbox"/> Nutrition	<input checked="" type="checkbox"/> Nursing	<input checked="" type="checkbox"/> Social Work
<input checked="" type="checkbox"/> Other: Massage therapy, Chiropractor, Athletic therapist, Speech and language therapy, vestibular.		

Care model principles

<input type="checkbox"/> Patient-centered care	<input type="checkbox"/> Shared decision making	<input checked="" type="checkbox"/> Patient education
<input checked="" type="checkbox"/> Self-management	<input type="checkbox"/> Integrated care	<input checked="" type="checkbox"/> Multidisciplinary teams
<input type="checkbox"/> Continuity or coordination of care	<input type="checkbox"/> Shared care	<input checked="" type="checkbox"/> Case management
<input type="checkbox"/> Patient navigator	<input type="checkbox"/> One-stop-shop	<input type="checkbox"/> Asynchronous care
<input type="checkbox"/> Evidence-based care	<input type="checkbox"/> Community of practice	<input type="checkbox"/> Quality improvement
<input type="checkbox"/> PROMs evaluation	<input type="checkbox"/> Training for healthcare professionals	
<input type="checkbox"/> Other (Specify):		

Care model components

<input type="checkbox"/> Decision support for healthcare professionals	<input type="checkbox"/> Clinical information system
<input type="checkbox"/> Triage system	<input type="checkbox"/> Referral system
<input checked="" type="checkbox"/> Standardized symptoms assessment/screening	<input checked="" type="checkbox"/> Social determinants assessment
<input type="checkbox"/> Follow-up system	<input checked="" type="checkbox"/> Patient support groups
<input type="checkbox"/> Home-based care	<input checked="" type="checkbox"/> Telehealth / virtual care
<input checked="" type="checkbox"/> Other (Specify): Return to work	

Post COVID Rehab & Recovery Programs/Pathways

COVID-related Wellness Program	Post COVID Recovery Support	Post COVID Rehab Program
<ul style="list-style-type: none"> • <i>Mostly Virtual</i> • <i>Addressing the anxiety & stress related to the pandemic</i> • <i>May or may not have had COVID diagnosis</i> • <i>Includes Quarantine-related de-conditioning</i> • <i>Individual mental health support sessions – focus on wellness and activation to return to work & ADL</i> • <i>Psych & OT mostly</i> 	<ul style="list-style-type: none"> • <i>Totally Virtual</i> • <i>Bridging from hospital to community to allow for early intervention following treatment for COVID</i> • <i>Group or individual sessions provided by physical & mental health professionals</i> • <i>4 week program of education, activation & peer support</i> • <i>RN lead</i> 	<ul style="list-style-type: none"> • Hybrid Model • Individual Assessment by OT or PT, who become case manager • Multi-disciplinary Approach • Individualized Treatment • Treatment Care Plan is provided based on their clinical trajectories and functional status • Physician clearance <u>req'd</u>

Post COVID-19 Rehab & Recovery

Multi-disciplinary team approach

PT or OT will provide initial assessment – treatment plan may include various professions depending on clinical trajectories



Supplement 2 – Patient Perspectives

We asked two patient partners to share their lived experience and perspective of receiving care for Long COVID. Each were asked three questions concerning their experience in seeking care, their interpretation of the evidence report and their suggestions to improve care organization. These patients were selected for their advocacy roles leading provincial, national and international patient support groups and collaborative. They have been living with Long COVID for over a year. Their views may not represent every Long COVID patients in Canada, but they are uniquely positioned to share the community needs. Their views are unedited by the research team.

Their experience with care for Long COVID in Canada highlighted fragmentation of care, inequitable access, privatization of rehabilitation, lack of knowledge from medical and healthcare professional that may incur risk of harms, the important role of the family physician in care coordination (albeit with limited support to primary care organization). Interestingly, patients reported that most of their care stemmed from research projects. Overall, this highlights that most care for Long COVID in Canada is shouldered by few dedicated researchers and healthcare professionals, which put them at risk of unsustainability.

Patient-Partner #1: Dre. Anne Bhéreur, MD.

1. Could you share with us your experience of receiving care for COVID long in Canada?

"Asterix's Madhouse"

Essentially, my experience of "care" is a failure of the health care system to respond proactively to, at first predictable, then proven, consequences of a global viral pandemic. The authorities are throwing the ball around... and we are going in circles.

My family doctor provided me with essential support. However, he was overwhelmed as I was with the array of symptoms and the lack of a Long COVID care pathway in Quebec. I was able to have various assessments by participating in research projects and received recently certain treatments based on the findings within the protocols. Specialized assessments were also organized by concerned colleagues. All of this required many steps, exceedingly difficult in a context of great functional limitations related to Long COVID and resulted in many delays... and repeated post-exertional malaise, putting my own recovery at risk... to get care. What a sad irony...

I have been a physician for almost 20 years and normally know how to navigate the maze of the system very well... with Long COVID, it is unfortunately still mission impossible! So how can someone less equipped manage to get care, when from the inside it is already extremely difficult and fragmented? I have learned a great deal from communities of patients with Long COVID and other post-infectious syndromes (e.g. myalgic encephalomyelitis) or complex diseases (e.g. Ehlers-Danlos syndrome). But I have also seen how post-infectious syndromes // complex and/or rare diseases are largely neglected by the health care system.

As for all the testimonies I've heard from people affected by Long COVID and other post-infectious syndromes // complex and/or rare diseases, unable to get a proper diagnosis and then proper assessment and support... it's enough to make you cry (and rage). And let's not forget all those who have been told that it's all anxiety, without a rigorous evaluation of the whole picture. I had the ability and the knowledge to observe the particularity of the symptoms and then demonstrate the reality of the impairments and the inconsistencies of certain results. But, once again, at the cost of many efforts, detrimental to my recovery. It is not normal to have to be a doctor in order to be listened to a little more... What about the fate of others who are less equipped?

Research projects are essential and are carried out at arm's length by valiant teams. However, they are not a substitute for appropriate and personalized care according to one's evolution. The few clinical projects, again valuable, are overwhelmed and lack the infrastructure and interdisciplinarity to provide comprehensive care.

2. Could you provide a few points on your interpretation of the results of the report?

The 1st version of the report clearly demonstrated that other countries have acted to provide integrated care for people affected by Long COVID, although many answers remain to be found about the mechanisms causing the symptoms and the treatment modalities. Some essential assessments and appropriate care can already make a big difference on well-being and outcome.

The literature also shows that it is possible to offer a trajectory of care with teams trained on current knowledge and in constant evolution according to research. In addition, my clinical experience allows me to see how well the proposed model can tie in with existing networks and offer care, not only for Long COVID, but for post-infectious syndromes // complex and/or rare diseases as well.

It is also crucial that care coordination be a major and essential part of any initiative to implement responsive and effective care.

3. What would be your suggestions to improve care for COVID long in Canada?

Canadian provinces must immediately implement care pathways focused on Long COVID (and other post-infectious syndromes // complex and/or rare diseases) in order to provide adequate assessment and treatment to the thousands of affected individuals throughout their jurisdictions. Appropriate social support must also be put in place, as precariousness is immense and progressive in these underserved populations. Criteria for admission to these care trajectories must consider the sometimes-limited access to a diagnosis of COVID, particularly at the beginning of the pandemic, and not be restricted based on other concomitant or prior health conditions.

Considering the still fragmented knowledge, it is imperative that these trajectories be linked with research in order to adapt interventions to the evolution of the understanding of Long COVID and other

post-infectious syndromes // complex and/or rare diseases. This is the best way to increase the chances of recovery and to limit harmful interventions that may cloud the prognosis for recovery. Of course, research must be funded in order to catch up with the immense backlog associated with decades of neglect of post-infectious syndromes // complex and/or rare diseases.

It is also essential to develop a knowledge-sharing structure between provinces so that we do not work in silos reinventing the wheel... organizationally, clinically and in research.

With the precariousness of health networks, exacerbated by the pandemic, there is a need to integrate care in order to limit medical wandering, which consumes resources in an erratic and inefficient manner, in addition to putting those affected at risk of avoidable deterioration. The education of a critical core of clinicians who can then bring their support and knowledge to the 1st and 2nd line networks is essential and urgent. Several patient communities will also be able to contribute in an essential way to better define the needs and the appropriate pathways.

Finally, it is inconceivable that a significant portion, even a majority, of the Canadian population is still unaware that COVID does not only translate into loss of life or recovery. This ignorance has a major impact on understanding and adherence to measures to avoid becoming infected.

Patient-Partner #2: Carrie-Anna McGinn, MSc.

1. Could you share with us your experience of receiving care for Long COVID in Canada?

My experience of receiving care for Long COVID in Canada is characterized by personal initiative, rather than coordinated care, through fragmented care pathways. My experience also highlights inequitable access to care, an overreliance on research projects for care that should be offered by the public healthcare system, and an overall lack of services adapted to the needs of people with Long COVID and other post-viral illnesses. The few Long COVID healthcare services available are credited to the personal initiative of health professionals, rather than a coordinated effort on behalf of the healthcare system.

Background: I am a 39 year old female scientific health professional living in Quebec City, Quebec. I tested positive for COVID in December 2020. I had a mild case of acute COVID and was not hospitalized. I have been living with Long COVID for nearly one year, and my symptoms include crushing exhaustion, post-exertional malaise, cognitive dysfunction, neuropathic pain, orthostatic intolerance, tachycardia, chest pain, breathlessness, sleep disturbance, and sensitivity to noise and lights. I have since been diagnosed with post-viral Postural Orthostatic Tachycardia Syndrome, pericarditis, and bilateral pleural effusion. I also meet all the diagnostic criteria for myalgic encephalomyelitis.

I am privileged to have a **family doctor** who is competent and supportive, however she is **not knowledgeable about post-viral illness**. My family doctor did not know of any specialists

knowledgeable about Long COVID or care pathways for patients such as myself. My family doctor has not seen me in person since I became ill, offering only telephone appointments. Her role has primarily been to prescribe medical leave from work, prescribe medication as needed, and refer me to specialists.

My own research led me to ask my family doctor for a **referral to the infectologist running Quebec's sole Long COVID clinic** within the healthcare system, Dr Alain Piché in Sherbrooke. He works alone, due to lack of funding, without a multidisciplinary team or supports. I must do a five hour round-trip drive to see him, which is very difficult for someone as ill as myself. I am privileged to have friends and family who drive me, and the financial ability to stay at a hotel, to minimize symptom exacerbation caused by travel. I was also lucky to be referred in early 2021, as he now has a long wait list with an average six month wait for a first appointment.

Dr Alain Piché referred me to a pulmonologist in Sherbrooke (which involved more travel), and I was able to undergo testing to rule out pulmonary sequelae in spring 2021. However, **the care I received from the pulmonologist - an effort test on a bicycle - caused harm**. It caused a catastrophic episode of post-exertional malaise (a disabling symptom exacerbation and exhaustion disproportionate to the effort made), and a major relapse lasting several months. **The pulmonologist had little experience with post-viral illness** and had never heard of post-exertional malaise, a symptom experienced by 75% of people with Long COVID.

With a professional background in health research, and as co-founder of Quebec's Long COVID virtual support group, I was able to follow the research projects that were starting up in spring 2021. **I was privileged to participate in three research projects offering clinical care:**

a) When the Long COVID research clinic at the Institut de recherche clinique de Montréal opened in spring 2021, through personal initiative I signed up to participate, and I was one of their first participants. Their clinic is a six hour round-trip drive from my home, and I was privileged to be able to travel to participate. I participated in their clinical research protocol, and as all my testing came back normal, I was not referred to any further care. I was lucky to be sick at that time, because this research project now has a waiting list of more than 900 people.

b) I participated in the TELEPORT rehabilitation research project led by Simon Décary, which offered virtual physiotherapy and occupational therapy to people with Long COVID in spring 2021. Through this project, I learned how to pace my activities of daily living, among other things, and gained access to continued care after the research project ended from the same rehabilitation professionals knowledgeable about Long COVID. I was privileged to be able to afford to continue this private rehabilitation care.

c) I was one of the first participants in the IMPACT-COVID Long COVID cardiology research project led by Dr Thao Huynh. It took place in Montreal, a six hour round-trip drive from my home, and I was privileged to be able to afford travel and a hotel to participate. As part of Dr Huynh's research protocol, I underwent a cardiac MRI, which showed that I had pericarditis and bilateral pleural effusion. I asked Dr



Huynh if she could test me for Postural Orthostatic Tachycardia Syndrome (POTS), a form of dysautonomia that can be caused by a viral infection. I was aware that I had symptoms of POTS (mainly orthostatic intolerance and tachycardia symptoms) due to information circulating within Long COVID and myalgic encephalomyelitis support groups; my family doctor had never heard of POTS. While this was not part of her research protocol, Dr Huynh agreed to test me and then diagnosed me with POTS. She has since agreed to be my cardiologist, outside of the research setting, and I am privileged to receive ongoing care from one of the only cardiologists knowledgeable about Long COVID in Quebec (and who is no longer accepting new patients).

At my request, my family doctor referred me to the only POTS/dysautonomia specialist in the province (located in Montreal, a six hour return drive from my home). My referral to this specialist was denied, as they had too many requests already.

I am privileged to have already had a neurologist, due to a pre-existing history of migraines. However, my **neurologist is not knowledgeable about Long COVID**. At my yearly follow-up with my neurologist in October 2021, I was referred for a neuropsychological evaluation and brain MRI to investigate my incapacitating cognitive dysfunction symptoms.

Medications, learning symptom self-management, time off work with adequate income support, and patient support groups have been central to my Long COVID care experience. Receiving medications for neuropathic pain, POTS, pericarditis and myalgic encephalomyelitis symptoms has greatly improved my quality of life. Practicing symptom self-management techniques such as pacing and adequately resting has allowed me to stop the crash-recovery cycle and stabilize my symptoms, also improving my quality of life. Time off work with adequate income support (private insurance) has allowed me to adequately rest, increasing my chances of an eventual recovery. Long COVID and myalgic encephalomyelitis support groups have been an invaluable source of information, especially as post-viral illness has been neglected in governments' pandemic communications. The support groups allowed me to be informed of care initiatives and research projects, and reduce isolation through connection to others.

Facilitating factors in my Long COVID care experience:

- **Personal privilege** (education, income, knowledge of the healthcare system) helped me access the little care that was available to me.
- **Date of my illness:** When I became ill in December 2020, a few specialized care and research projects were being set up in Quebec and were still relatively accessible; they all now currently have long waitlists.
- **A positive COVID test** helped my Long COVID experience to be believed and allowed me to access care and participate in research projects more easily.

Barriers encountered during my Long COVID care experience:

- **Health professionals lacked knowledge about post-viral illness in general and specifically about Long COVID.** They received no guidance from the provincial health ministry on how to offer care. As a result, some care I received caused harm.
- **Lack of services adapted to the needs of people with Long COVID and other post-viral illnesses** such as myalgic encephalomyelitis. The few Long COVID healthcare services available are credited to the personal initiative of health professionals, rather than a coordinated effort on behalf of the healthcare system, and do not receive adequate support to ensure continued access to the growing numbers of people with Long COVID.
- **Lack of coordinated care and defined care pathways.** It was incredibly frustrating to have to manage both an incapacitating illness and my own care, all while advocating for myself and educating the healthcare professionals I encountered about my illness.
- **Reliance on research projects to give care and access care** that should instead be accessed equitably through the public healthcare system.
- **Inequitable access to care:** It is **geographically** inequitable, as there are no Long COVID clinics or specialists in my city (the provincial capital), requiring me to make five or six hour return drives for care in other cities. It is inequitable based upon **access to family doctors**, and then doctor's belief or disbelief of Long COVID and their willingness to learn about post-viral illness, prescribe medical leave, medications and referrals to specialists. It is also inequitable based upon **financial resources**, as many Long COVID services such as rehabilitation and medications are only available privately, at great personal cost. It is inequitable for people with Long COVID who do not have a **positive COVID test**.

2. Could you provide a few points on your interpretation of the results of the report?

Other countries have recognized the importance of offering adapted services to people with Long COVID and have mobilized resources to meet their needs. Canada must learn from these initiatives, as well as from approaches used for other post-viral illnesses, such as myalgic encephalomyelitis. Canada must then rapidly implement a care model adapted to the Canadian context.

The results clearly show that it is possible to offer adequate, equitable care to people with Long COVID in Canada. The proposed care pathway for Long COVID fits within Canada's existing healthcare systems and would be possible to quickly implement, with sufficient political will.

The proposed care pathways should not just benefit people with Long COVID, but also all people suffering from post-viral illness.

Any care pathways and care offered to people with Long COVID must be patient-centred. While this element was not measured in the identified literature, it will be essential that care model implementation in Canada be centred around meeting the needs identified by those with Long COVID.

3. What would be your suggestions to improve care for Long COVID in Canada?

- **Medical education is needed about post-viral illness.** Healthcare professionals and decision makers lack knowledge about Long COVID and post-viral illness in general. They need support to understand the illness and effective approaches for care.
- **Care must be based upon post-viral scientific research**, particularly that pertaining to myalgic encephalomyelitis. There is no need to reinvent the wheel, wasting time and resources, when there are decades of quality research, approaches and treatments available to help those suffering from Long COVID. **Care must also evolve as scientific knowledge evolves about Long COVID.**
- **It is important to evaluate the implementation of care pathways in Canada.**
- **Canadian Long COVID initiatives and care pathways across Canada should support and learn from each other**, to promote best practices and efficient resource management.
- **Care must be accessible to all.** Actively removing barriers to care, whether they be geographical, financial, or other are key to ensuring equitable care for all Canadians. It is important that people with Long COVID be able to self-refer to post-COVID assessment and triage, as many will not have family doctors or may have disbelieving family doctors, particularly patients without positive COVID tests.
- **Care must be adapted to the specificities of the illness.** For example: a) Diagnostic testing is often normal for people suffering from Long COVID, however they are very ill and require care. Their symptoms should not be dismissed as psychosomatic. b) 75% of people with Long COVID experience post-exertional malaise, a disabling and often delayed symptom exacerbation and exhaustion disproportionate to the effort made. For these people, traditional rehabilitation approaches involving exercise cause harm. Safe rehabilitation approaches must instead be offered. c) Because most people with Long COVID experience debilitating exhaustion, travelling for care is difficult; virtual appointments or home visits may be necessary when appropriate.
- **Care must be coordinated and clear care pathways must be determined** so that no person with Long COVID is left behind.
- **Rehabilitation and psychosocial support are important, but should not be the sole services offered to people with Long COVID. We also need quality biomedical care:** diagnostic testing, screening for myalgic encephalomyelitis and common comorbidities (ex: postural orthostatic tachycardia syndrome, mast cell activation syndrome), medications to treat symptoms, referrals to specialists when required.
- **Healthcare professionals must inform people with Long COVID that they may become disabled and must offer disability support** (mobility aids, disability paperwork, home care, etc). Many clinics and

services focus on “recovery”, while in fact many people with Long COVID will be left with permanent disabilities, such as myalgic encephalomyelitis, and require continued healthcare and support.

- People with Long COVID require adequate income support, for both short term illness and long term disability.

- People with Long COVID must be involved in the design, implementation, and management of services related to Long COVID. We are the experts of our own illness, and nothing about us should be done without us.

- Federal, provincial and territorial governments, as well as all healthcare and public health organisations across the country, must talk about Long COVID and post-viral illness. Long COVID is not a surprise; post-viral illness is not new. Yet it has been deliberately ignored by decision makers, contributing to a lack of awareness about Long COVID among both the public and healthcare professionals, and a lack of services to support those suffering from it.

Supplement 3 – Alignment with WHO case definition and NICE guidelines.

In this section, we share our interpretation and analysis of two international-scale initiatives since the last report that may directly impact our future interpretation and design of care models in Canada.

1. The World Health Organization (WHO) issues a clinical case definition.

On October 6th, 2021, the WHO issued their clinical case definition of post COVID-19 condition (https://www.who.int/publications/i/item/WHO-2019-nCoV-Post_COVID-19_condition-Clinical_case_definition-2021.1). WHO used a two-round Delphi exercise to produce the definition including patients, clinicians, researchers, external experts, WHO staff and others. The process included 265 participants, with 178 complete responses for Round 2. The process led to the identification of 12 final domains with 45 items. Here we provide the case definition and explore the key elements that impact care model organization and operationalization.

Post COVID-19 condition occurs in individuals with a **history of probable or confirmed SARS-CoV-2 infection, usually 3 months from the onset of COVID-19 with symptoms that last for at least 2 months and cannot be explained by an alternative diagnosis.** Common symptoms include **fatigue, shortness of breath, cognitive dysfunction** but also others (see [Table 3](#) and [Annex 2](#)) which generally have an **impact on everyday functioning.** Symptoms may be **new onset**, following initial recovery from an acute COVID-19 episode, or **persist** from the initial illness. Symptoms may also **fluctuate** or **relapse** over time. A separate definition may be applicable for children.

The World Health Organization clinical case definition.

- **“History of probable or confirmed SARS-CoV-2 infection”.** This domain confirms that many patients with Long COVID will not have a confirmatory PCR or anti-bodies testing of having had a COVID-19 infection. Therefore, Canadian decision makers may consider not restricting access to care to only those with a confirmed COVID-19 diagnostic. PCR test should not restrict access to services within a care model for Long COVID in Canada. However, involving **a trained healthcare or medical professional within a care model may be necessary to appropriately assess clinical symptoms history and differential diagnosis** to establish an epidemiological/clinical diagnosis of post COVID-19 condition.
- **“Usually, 3 months from the onset of COVID-19 with symptoms that last for at least 2 months and cannot be explained by an alternative diagnosis”.** These domains have likely the most impact on care models organization. In our previous report, our definition of Long COVID included all persistent symptoms longer than 4 weeks, per the NICE guidelines’ definition. This allowed us to include post-hospitalization care models as Long COVID models that tackled the 6-8-week timeframe

after being discharged. Clinically, this definition tackles the 4 to 12 weeks duration during which up to half of patients naturally recovered, making this a complex period to confirm a diagnosis of Long COVID. However, this definition also implies that a patient may not be considered a true case of Long COVID prior to the 12-week marks with observation during a 2-month period. **To be operationalized within a care model would imply that patients not reaching this mark are all considered as “probable” or “under observation”. This would also imply that care model should implement different levels of intervention**

- . For example, patients within the 12-week timeframe could receive primarily educational intervention on rest and pace per current guidelines, while a complete multidisciplinary team would be kept after 12 weeks.
- **“Common symptoms [...] which generally impact on everyday functioning”.** This domain confirms that a standardized multi-systemic assessment is required to orientate toward appropriate management within a care model. **The emphasis on the impact on functioning implies that specific severity criteria should be used for assessing services within a care model.**
- **“New onset following initial recovery or persist from the initial illness. Symptoms may also fluctuate or relapse over time”.** These domains highlight the non-linear trajectory of the recovery process of Long COVID. **The direct impact is that a strict programmatic approach to care models (e.g. 8-week programs) may not be flexible enough for patients’ needs.** The first iteration of our review highlighted the difficulty to discharge patients from Long COVID clinics in the UK because of ongoing medical and rehabilitation needs. This concept needs to be built into the structure of new care models development. This also highlights the need for flexible and adaptative approaches to return to work and insurance packages.

The WHO clinical case definition can help health system organizations better understand and take into account the complex and unpredictable nature of Long COVID into care model development. This steers away from a programmatic and strict program approach and moves toward a model that is integrated within the current public and private health systems in Canada. It also emphasizes that time is important in all aspects of Long COVID, from the diagnosis to the management approach and prognosis. Certain caveats remain such as the lack of difference between hospitalized and non-hospitalized patients and the focus on symptoms rather than new onset of comorbidities and subdiagnoses (e.g. new onset of heart diseases, pulmonary, orthostatic intolerance) as tackled by new international clinical practice guidelines²³ and may impact care trajectories.

2. An update for the NICE clinical practice guidelines from the United Kingdom.

First published in November 2020, the NICE guidelines remain the standard of practice underlying the NHS care model development in the UK, as highlighted in our first report. In November 2021, NICE published their guidelines update for Long COVID. This guideline includes an evidence-based and expert

panel consensus methodology to propose recommendations. We highlight recommendations for services organization that may impact care models in Canada.

NICE recommendations	Impact for Canadian care models
<p>“Agree local, integrated referral pathways between primary care community care, rehabilitation services and specialist services, multidisciplinary assessment clinics (where available) and specialist mental health services.”</p> <p>“Consider follow-up by primary care or community services for people in vulnerable or high-risk groups who have self-managed in the community after suspected or confirmed acute COVID-19.”</p>	<p>These recommendations highlight the importance of organizing an ecosystem of services for patients with Long COVID across the four main interfaces of our previously proposed patient pathway: coordination units to centrally receive referrals from both hospitalized and community-based patients, training of primary care teams to screen and support medical needs, integrated local multidisciplinary rehabilitation services and access to medical specialty clinics for advanced testing and diagnoses.</p> <p>However, the recommendations also emphasize the importance of integrating services at the level of primary care to ensure the long-term follow-up of patients.</p>
<p>“Provide continuity of care with the same healthcare professional or team as much as possible, for example, by providing a care coordinator or a single point of contact.”</p> <p>“Provide access to multidisciplinary services, if available (these could be one-stop clinics) for assessing physical and mental health symptoms and carrying out further tests and investigations. Services should be led by a doctor with relevant skills and experience and appropriate support, taking into account the variety of presenting symptoms.”</p> <p>“Provide integrated, multidisciplinary rehabilitation services, based on local need and resources. Healthcare professionals should have a range of specialist skills, with expertise in managing fatigue and respiratory symptoms (including breathlessness). Additional expertise may be needed depending on the age and symptoms of the person. The core team could include, but not be limited to, the following specialist areas: 1- occupational therapy, 2- physiotherapy, 3- clinical psychology and psychiatry and 4- rehabilitation medicine.”</p>	<p>In our first report, coordination of care emerged as a key principle of care model for Long COVID. The recommendation emphasizes that any healthcare professionals could take on this role, likely following adequate training. This could resolve staffing issues, whereas not all local contexts have access to a diversity of healthcare professionals.</p> <p>The second recommendation proposes that multidisciplinary services should be led by a doctor with skills in multi-systemic assessment. Combined with previous recommendations on primary care, this highlights the important role of family physicians to fit this role in organizing care for a long-term multi-systemic disease such as Long COVID, with supports from adequate specialties and professional services as stated in third recommendation.</p>

“After the holistic assessment, discuss with the person (and their family or carer, if appropriate) the options available and what each involves. These should include advice on self-management, with the option of supported self-management, and one or more of the following, depending on clinical need and local pathways: 1- support from integrated and coordinated primary care, community, rehabilitation and mental health services, 2- referral to an integrated multidisciplinary assessment service, 3- referral to specialist care for specific complications.”

“Use shared decision making to decide how often follow-up and monitoring are needed, which healthcare professionals should be involved and whether appointments should be carried out in person or remotely.”

“Use shared decision making to discuss and agree plan for discharge from rehabilitation and care, taking into account the person’s preferences, goals and social support.”

The new NICE guidelines largely emphasize the use of shared decision making throughout the care process for Long COVID. This aligns with the updated guidelines on shared decision making from NICE.

While this a laudable recommendation, we are currently unaware of any specific interventions designed to facilitate shared decision making such as patient decision aids and training of health care professionals. Developing high-quality training and decision aids is a complex process, which may be limited by the quality of evidence for specific interventions for Long COVID. More research is required in this area.

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APPENDIX 1 - Definitions

Care model principles

Patient-centered care

“Providing care that is respectful of, and responsive to, individual patient preferences, needs and values, and ensuring that patient values guide all clinical decisions.”²⁴

Shared decision making

“An approach where clinicians and patients share the best available evidence when faced with the task of making decisions, and where patients are supported to consider options, to achieve informed preferences.”²⁵

Patient education

“The process of influencing patient behavior and producing the changes in knowledge, attitudes and skills necessary to maintain or improve health.”²⁶

Self-management

“Self-management support is the help given to people with chronic conditions that enables them to manage their health on a day-to-day basis.”²⁷

Integrated care

“Health services that are managed and delivered so that people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease-management, rehabilitation and palliative care services, coordinated across the different levels and sites of care within and beyond the health sector, and according to their needs throughout the life course.”²⁸

Multidisciplinary teams

“A multidisciplinary team involves a range of health professionals, from one or more organisations, working together to deliver comprehensive patient care.”²⁹

Shared care

“The joint participation of primary care physicians and specialist care physicians in the planned delivery of care for patients with a chronic condition, informed by an enhanced information exchange over and above routine discharge and referral.”³⁰

Continuity or coordination of care

“The delivery of a 'seamless service' through integration, coordination and the sharing of information between different providers.”³¹

Case management

“The term “case manager” is generally used to describe a care professional that promotes upstream approaches to health care and facilitates individualized care coordination for those with complex and chronic health conditions. (...) Case managers are often known to conduct patient assessments; patient identification and outreach; care planning and coordination; and service evaluation.”³²

Patient navigator

“A partnership between a patient or caregiver and a navigator (e.g. registered nurse or peer) that seeks to proactively guide patients through the healthcare continuum to facilitate timely access to care and foster self-management and autonomy through education and emotional support. (...) Patient navigation typically employs an individualized, holistic approach to help patients navigate through a range of health care services”³²

One-stop-shop

This means that the patient sees all care team members and subspecialists in the same clinical visit.

Asynchronous care

Type of telehealth care that use “store-and-forward technologies to collect health data that can be transmitted and interpreted later”³³. For example, the use of technology to remotely monitor patient outcomes with mobile apps.

Evidence-based care

“An approach to decision making where a clinician uses the best evidence available, in consultation with the patient (evidence-based patient choice), to decide upon which option best suits the patient.”³⁴

Community of practice

“Groups of people who share a concern, a set of problems, and a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.”³⁵

Quality improvement

“The combined and unceasing efforts of everyone—healthcare professionals, patients and their families, researchers, payers, planners and educators—to make the changes that will lead to better patient outcomes (health), better system performance (care) and better professional development.”³⁶

PROMs evaluation

Patient-reported outcome measures (PROMs). “PROMs are measurement tools that patients use to provide information on aspects of their health status that are relevant to their quality of life, including symptoms, functionality, and physical, mental and social health.”³⁷

Training for healthcare professionals

Training for healthcare professionals that is planned in the care model (ex: information about long covid symptoms, assessment tools, referral pathways, etc.)

Research partnerships

Incorporating research aspects into the care model to study long covid or to evaluate the impact of the care model for long covid.

Care model components

Decision support for healthcare professionals

The care model reports the use of decision supports for healthcare professionals. These include, for example, clinical decision support systems or decision trees. “Clinical decision support systems (CDSS) are computer-based programs that analyze data within EHRs to provide prompts and reminders to assist health care providers in implementing evidence-based clinical guidelines at the point of care.”³⁸

Clinical information system

The care model reports the use or adaptation of a clinical information system to facilitate the management of Long Covid. For example, EMR adaptations, including forms specific for Long Covid, etc.

Triage system

Process by which patients are assessed and prioritized based on specific criteria.

Standardized symptoms assessment

Using standardized tools to assess patient's symptoms.

Social determinants assessment

A step in the care model that involves assessing the patient's psychosocial needs, such as employment/return to work, food security, housing situation, etc.

Referral system

Process by which patients are directed to other healthcare professionals to receive other type of care or tests (ex: referral to speciality care).

Follow-up system

Process by which a healthcare professional or a care coordinator is keeping track on how the patient is doing after treatments end (ex: a structured follow-up care plan).

Patient support groups

“A group of people with common experiences and concerns who provide emotional and moral support for one another.”³⁹

Home-based care

Care or services that are provided at home, out of the hospital.

Telehealth / virtual care

Care or services that are provided over the phone or the Internet (on a computer, etc.).

APPENDIX 2 - Search Strategies

Long Covid – Models, CPGs, SRs

Final Strategies

2021 May 27

2021 October 7

Ovid Multifile

Database: Ovid MEDLINE: Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE® Daily and Ovid MEDLINE® <1946-Present>, Embase Classic+Embase <1947 to 2021 May 26>

Search Strategy:

-
- 1 (long adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kf. (381)
 - 2 ((longterm or long-term) adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kf. (41)
 - 3 ((postacute or post-acute) adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kf. (102)
 - 4 (chronic* adj2 (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kf. (151)
 - 5 COVID-19/ and Syndrome/ (91)
 - 6 SARS-CoV-2/ and Syndrome/ (75)
 - 7 or/1-6 [LONG COVID - PT 1] (731)
 - 8 COVID-19/ (83147)
 - 9 SARS-CoV-2/ (74922)
 - 10 Coronavirus/ (13359)
 - 11 Betacoronavirus/ (40862)
 - 12 Coronavirus Infections/ (56621)
 - 13 (COVID-19 or COVID19).tw,kf. (235942)
 - 14 ((coronavirus* or corona virus*) and (hubei or wuhan or beijing or shanghai)).tw,kf. (9410)

Care Models for Long COVID

- 15 (wuhan adj5 virus*).tw,kf. (491)
- 16 (2019-nCoV or 19nCoV or 2019nCoV).tw,kf. (2946)
- 17 (nCoV or n-CoV or "CoV 2" or CoV2).tw,kf. (85204)
- 18 (SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2).tw,kf. (86740)
- 19 (2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or ((novel or new or nouveau) adj2 (CoV or nCoV or covid or coronavirus* or corona virus or Pandemi*2)) or (coronavirus* and pneumonia)).tw,kf. (34062)
- 20 (novel coronavirus* or novel corona virus* or novel CoV).tw,kf. (17401)
- 21 ((coronavirus* or corona virus*) adj2 "2019").tw,kf. (54774)
- 22 ((coronavirus* or corona virus*) adj2 "19").tw,kf. (8784)
- 23 (coronavirus 2 or corona virus 2).tw,kf. (28182)
- 24 (OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*).tw,kf. (7411)
- 25 COVID-19.rx,px,ox. or severe acute respiratory syndrome coronavirus 2.os. (5852)
- 26 (coronavirus* or corona virus*).ti. (42413)
- 27 or/8-26 [COVID-19] (294674)
- 28 (post adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)).tw,kf. (346)
- 29 (after adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)).tw,kf. (330)
- 30 (following adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)).tw,kf. (128)
- 31 ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system*" or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") adj3 recover*).tw,kf. (81004)
- 32 ((after discharg* or following discharg* or postacute* or "post acute*" or postdischarg* or "post discharge" or "post discharging" or posthospital* or post-hospital* or postinfect* or "post infection" or "post infective*" or postviral* or "post viral*" or postvirus* or "post virus*" or postcritical or post-critical or postintensive or post-intensive or post-ICU) adj3 recover*).tw,kf. (1326)

- 33 ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system*" or ongoing or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") adj3 (complication? or consequence? or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering? or symptom* or recuperat*)).tw,kf. (593443)
- 34 ((after discharg* or following discharg* or postacute* or "post acute*" or postdischarg* or "post discharge" or "post discharging" or posthospital* or post-hospital* or postinfect* or "post infection" or "post infective*" or postviral* or "post viral*" or postvirus* or "post virus*" or postcritical or post-critical or postintensive or post-intensive or post-ICU) adj3 (complication? or consequence? or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering? or symptom* or recuperat*)).tw,kf. (4450)
- 35 (nonrecover* or "non recover*" or "not recover*").tw,kf. (17092)
- 36 ("long* haul*" or longhaul* or "long* tail*" or longtail* or longduration* or "long duration*" or longlast* or "long last*" or longstanding* or "long standing*" or "medium* term*" or mediumterm*).tw,kf. (271517)
- 37 or/28-36 [LONG-TERM ILLNESS, PROTRACTED RECOVERY, ETC.] (942246)
- 38 27 and 37 [LONG COVID - PT 2] (6420)
- 39 Long Term Adverse Effects/ (205340)
- 40 "Recovery of Function"/ (106473)
- 41 Convalescence/ (59988)
- 42 or/39-41 [POST-COVID RECOVERY PERIOD] (320631)
- 43 27 and 42 [LONG COVID - PT 3] (2000)
- 44 7 or 38 or 43 [LONG COVID] (8693)
- 45 exp Aftercare/ (1938519)
- 46 Ambulatory Care/ (85233)
- 47 Delivery of Health Care/ (244906)
- 48 Models, Organizational/ (64796)
- 49 Outpatients/ (138471)
- 50 exp Patient Care Management/ (1703321)
- 51 exp Rehabilitation/ (761203)
- 52 (aftercare or after care or follow-up care).tw,kf. (24545)
- 53 (rehab or rehabil*).tw,kf. (458901)
- 54 ((model* or deliver* or framework?) adj5 (care or healthcare or health care or service or services)).tw,kf. (309659)
- 55 or/45-54 [CARE MODELS] (4750522)
- 56 44 and 55 [LONG COVID - CARE MODELS] (1838)
- 57 exp Clinical Pathways/ (15980)
- 58 exp Clinical Protocols/ (280688)
- 59 Consensus/ (93947)
- 60 exp Consensus Development Conference/ (36866)
- 61 exp Consensus Development Conferences as Topic/ (27481)
- 62 exp Guideline/ (35770)
- 63 Guidelines as Topic/ (458957)
- 64 Practice Guidelines as Topic/ (475148)
- 65 Health Planning Guidelines/ (105593)
- 66 (Guideline or Practice Guideline or Consensus Development Conference or Consensus Development Conference, NIH).pt. (45391)

67 (position statement* or policy statement* or practice parameter* or practice point? or best practice*).tw,kf. (91593)
68 (standards or guidance or guideline or guidelines).ti,kf. (299635)
69 ((practice or treatment* or clinical) adj (guidance or guideline*)).ab. (114984)
70 (CPG or CPGs).ti. (13142)
71 consensus*.ti,kf. (61559)
72 consensus*.ab. /freq=2 (64818)
73 ((care or critical or clinical or practice) adj2 (algorithm* or path or paths or pathway or pathways or protocol*)).tw,kf. (86750)
74 recommendat*.ti,kf. (99351)
75 (overview? adj2 (guidance or guideline?)).tw,kf. (354)
76 exp Clinical Decision-Making/ (63513)
77 ((clinical or medical) adj (decision* or reasoning?)).tw,kf. (109906)
78 or/57-77 [CPG FILTER] (1698463)
79 44 and 78 [LONG COVID - CPGS] (547)
80 Systematic Review.pt. (155111)
81 exp Systematic Reviews as Topic/ (32120)
82 Meta Analysis.pt. (133028)
83 exp Meta-Analysis as Topic/ (67702)
84 (meta-analy* or metanaly* or metaanaly* or met analy* or integrative research or integrative review* or integrative overview* or research integration or research overview* or collaborative review*).tw,kf. (476868)
85 (systematic review* or systematic overview* or evidence-based review* or evidence-based overview* or (evidence adj3 (review* or overview*)) or meta-review* or meta-overview* or meta-synthes* or rapid review* or "review of reviews" or umbrella review? or technology assessment* or HTA or HTAs).tw,kf. (575494)
86 exp Technology Assessment, Biomedical/ (26395)
87 (cochrane or health technology assessment or evidence report or systematic reviews).jw. (51736)
88 (network adj (MA or MAs)).tw,kf. (32)
89 (NMA or NMAs or MTC or MTCs or MAIC or MAICs).tw,kf. (19824)
90 indirect* compar*.tw,kf. (6193)
91 (indirect treatment* adj1 compar*).tw,kf. (1082)
92 (mixed treatment* adj1 compar*).tw,kf. (1372)
93 (multiple treatment* adj1 compar*).tw,kf. (423)
94 (multi-treatment* adj1 compar*).tw,kf. (9)
95 simultaneous* compar*.tw,kf. (2585)
96 mixed comparison?.tw,kf. (85)
97 or/80-96 [REVIEW FILTER] (966617)
98 44 and 97 [LONG COVID - REVIEWS] (338)
99 56 or 79 or 98 [LONG COVID - MODELS OF CARE, CPGS, REVIEWS] (2408)
100 99 use ppez [MEDLINE RECORDS] (837)
101 (long adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw. (375)

- 102 ((longterm or long-term) adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw. (47)
- 103 ((postacute or post-acute) adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw. (104)
- 104 (chronic* adj2 (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)).tw,kw. (638)
- 105 or/101-104 [LONG COVID - PT 1] (1121)
- 106 coronavirus disease 2019/ (193990)
- 107 severe acute respiratory syndrome coronavirus 2/ (92200)
- 108 Coronavirinae/ (4840)
- 109 Betacoronavirus/ (40862)
- 110 coronavirus infection/ (57497)
- 111 (COVID-19 or COVID19).tw,kw. (239859)
- 112 ((coronavirus* or corona virus*) and (hubei or wuhan or beijing or shanghai)).tw,kw. (9550)
- 113 (wuhan adj5 virus*).tw,kw. (514)
- 114 (2019-nCoV or 19nCoV or 2019nCoV).tw,kw. (3271)
- 115 (nCoV or n-CoV or "CoV 2" or CoV2).tw,kw. (84744)
- 116 (SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2).tw,kw. (92405)
- 117 (2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or ((novel or new or nouveau) adj2 (CoV or nCoV or covid or coronavirus* or corona virus or Pandemi*2)) or (coronavirus* and pneumonia)).tw,kw. (34473)
- 118 (novel coronavirus* or novel corona virus* or novel CoV).tw,kw. (17732)
- 119 ((coronavirus* or corona virus*) adj2 "2019").tw,kw. (54567)
- 120 ((coronavirus* or corona virus*) adj2 "19").tw,kw. (8528)
- 121 (coronavirus 2 or corona virus 2).tw,kw. (27983)
- 122 (OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*).tw,kw. (7585)
- 123 (coronavirus* or corona virus*).ti. (42413)
- 124 or/106-123 [COVID-19] (303261)
- 125 (post adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or

illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*).tw,kw. (347)

126 (after adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*).tw,kw. (330)

127 (following adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*).tw,kw. (128)

128 ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system*" or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") adj3 recover*).tw,kw. (81353)

129 ((after discharg* or following discharg* or postacute* or "post acute*" or postdischarg* or "post discharge" or "post discharging" or posthospital* or post-hospital* or postinfect* or "post infection" or "post infective*" or postviral* or "post viral*" or postvirus* or "post virus*" or postcritical or post-critical or postintensive or post-intensive or post-ICU) adj3 recover*).tw,kw. (1335)

130 ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system*" or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") adj3 (complication? or consequence? or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering? or symptom* or recuperat*).tw,kw. (597936)

131 ((after discharg* or following discharg* or postacute* or "post acute*" or postdischarg* or "post discharge" or "post discharging" or posthospital* or post-hospital* or postinfect* or "post infection" or "post infective*" or postviral* or "post viral*" or postvirus* or "post virus*" or postcritical or post-critical or postintensive or post-intensive or post-ICU) adj3 (complication? or consequence? or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering? or symptom* or recuperat*).tw,kw. (4478)

132 (nonrecover* or "non recover*" or "not recover*).tw,kw. (17095)

133 ("long* haul*" or longhaul* or "long* tail*" or longtail* or longduration* or "long duration*" or longlast* or "long last*" or longstanding* or "long standing*" or "medium* term*" or mediumterm*).tw,kw. (271747)

134 or/125-133 [LONG-TERM ILLNESS, PROTRACTED RECOVERY, ETC.] (947181)

135 124 and 134 [LONG COVID - PT 2] (6532)

136 convalescence/ (59988)

137 124 and 136 [LONG COVID - PT 3] (1236)

138 105 or 135 or 137 [LONG COVID] (8425)

139 exp aftercare/ (1938519)

- 140 exp ambulatory care/ (106994)
- 141 health care delivery/ (281754)
- 142 nonbiological model/ (48215)
- 143 outpatient/ (156497)
- 144 outpatient care/ (84406)
- 145 patient care/ (324986)
- 146 patient care planning/ (69401)
- 147 exp rehabilitation/ (761203)
- 148 (aftercare or after care or follow-up care).tw,kw. (24870)
- 149 (rehab or rehabil*).tw,kw. (472388)
- 150 ((model* or deliver* or framework?) adj5 (care or healthcare or health care or service or services)).tw,kw. (303666)
- 151 or/139-150 [CARE MODELS] (3802557)
- 152 138 and 151 [LONG COVID - CARE MODELS] (1483)
- 153 exp practice guideline/ (625602)
- 154 (position statement* or policy statement* or practice parameter* or practice point? or best practice*).tw,kw. (92164)
- 155 (standards or guidance or guideline or guidelines).ti,kw. (322387)
- 156 ((practice or treatment* or clinical) adj (guidance or guideline*)).ab. (114984)
- 157 (CPG or CPGs).ti. (13142)
- 158 consensus/ (93947)
- 159 consensus*.ti,kw. (64562)
- 160 consensus*.ab. /freq=2 (64818)
- 161 ((care or critical or clinical or practice) adj2 (algorithm* or path or paths or pathway or pathways or protocol*)).tw,kw. (87461)
- 162 recommendat*.ti,kw. (102225)
- 163 (overview? adj2 (guidance or guideline?)).tw,kw. (358)
- 164 clinical decision making/ (63185)
- 165 ((clinical or medical) adj (decision* or reasoning?)).tw,kw. (110930)
- 166 or/153-165 [CPG FILTER] (1383950)
- 167 138 and 166 [LONG COVID - CPGS] (468)
- 168 "systematic review"/ (452145)
- 169 "systematic review (topic)"/ (26590)
- 170 meta-analysis/ (348764)
- 171 "meta analysis (topic)"/ (45671)
- 172 (meta-analy* or metanaly* or metaanaly* or met analy* or integrative research or integrative review* or integrative overview* or research integration or research overview* or collaborative review*).tw,kw. (480250)
- 173 (systematic review* or systematic overview* or evidence-based review* or evidence-based overview* or (evidence adj3 (review* or overview*)) or meta-review* or meta-overview* or meta-synthes* or rapid review* or "review of reviews" or umbrella review? or technology assessment* or HTA or HTAs).tw,kw. (579797)
- 174 exp Technology Assessment, Biomedical/ (26395)
- 175 (cochrane or health technology assessment or evidence report or systematic reviews).jw. (51736)
- 176 (network adj (MA or MAs)).tw,kw. (32)
- 177 (NMA or NMAs or MTC or MTCs or MAIC or MAICs).tw,kw. (19881)
- 178 indirect* compar*.tw,kw. (6293)

179 (indirect treatment* adj1 compar*).tw,kw. (1088)
 180 (mixed treatment* adj1 compar*).tw,kw. (1395)
 181 (multiple treatment* adj1 compar*).tw,kw. (432)
 182 (multi-treatment* adj1 compar*).tw,kw. (9)
 183 simultaneous* compar*.tw,kw. (2585)
 184 mixed comparison?.tw,kw. (86)
 185 or/168-184 [REVIEW FILTER] (1057939)
 186 138 and 185 [LONG COVID - REVIEWS] (378)
 187 152 or 167 or 186 [LONG COVID - MODELS OF CARE, CPGS, REVIEWS] (2084)
 188 187 use emczd [EMBASE RECORDS] (1397)
 189 100 or 188 [BOTH DATABASES] (2234)
 190 remove duplicates from 189 (1676) [TOTAL UNIQUE RECORDS]
 191 190 use ppez (825) [MEDLINE UNIQUE RECORDS]
 192 190 use emczd (851) [EMBASE UNIQUE RECORDS]

Web of Science

40 471 #39 OR #30 OR #19
 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All
 years

39 122 #38 AND #14
 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All
 years

38 569,235 #37 OR #36 OR #35 OR #34 OR #33 OR #32 OR #31
 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All
 years

37 2,812 TOPIC: (simultaneous* NEAR/0 compar*) OR TOPIC: ("mixed comparison" or
 "mixed comparisons")
 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All
 years

36 1,383 TOPIC: (("indirect treatment" or "indirect
 treatments") NEAR/1 compar*) OR TOPIC: (("mixed treatment" or "mixed
 treatments") NEAR/1 compar*) OR TOPIC: (("multiple treatment" or "multiple
 treatments") NEAR/1 compar*) OR TOPIC: (("multi-treatment" or "multi-
 treatments") NEAR/1 compar*)
 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All
 years

35 4,562 TS=(indirect* NEAR/1 compar*)
 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All
 years

34 11,264 TS=(NMA or NMAs or MTC or MTCs or MAIC or MAICs)
 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All
 years

33 35 TS=("network MA" or "network MAs")

- Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
- # 32 251,483 TS=("systematic review" or "systematic reviews" or "systematic overview" or "systematic overviews" or "evidence-based review" or "evidence-based reviews" or "evidence-based overview" or "evidence-based overviews" or (evidence NEAR3 (review* or overview*)) or "meta-review" or "meta-reviews" or "meta-overview" or "meta-overviews" or (meta NEAR/0 synthes*) or "rapid review" or "rapid reviews" or "review of reviews" or "umbrella review" or "umbrella reviews" or "technology assessment" or "technology assessments" or HTA or HTAs)
Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
- # 31 410,119 TS=((meta NEAR/0 analy*) or metanaly* or metaanaly* or (met NEAR/0 analy*) or "integrative research" or "integrative review" or "integrative reviews" or "integrative overview" or "integrative overviews" or "research integration" or "research overview" or "research overviews" or "collaborative review" or "collaborative reviews")
Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
- # 30 135 #29 AND #14
Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
- # 29 644,701 #28 OR #27 OR #26 OR #25 OR #24 OR #23 OR #22 OR #21 OR #20
Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
- # 28 48,898 TS=((clinical or medical) NEAR/0 (decision* or reasoning*))
Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
- # 27 487 TS=(overview* NEAR/2 (guidance or guideline*))
Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
- # 26 69,066 TI=recommendat*
Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
- # 25 57,908 TS=((care or critical or clinical or practice) NEAR/2 (algorithm* or path or paths or pathway or pathways or protocol*))
Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
- # 24 45,043 TI=consensus*
Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
- # 23 8,296 TI=(CPG or CPGs)
Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
- # 22 73,136 TS=((practice or treatment* or clinical) NEAR/0 (guidance or guideline*))

		Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
# 21	320,932	TI=(standards or guidance or guideline or guidelines) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
# 20	70,780	TS=("position statement" or "position statements" or "policy statement" or "policy statements" or "practice parameter" or "practice parameters" or "practice point" or "practice points" or "best practice" or "best practices") Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
# 19	246	#18 AND #14 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
# 18	472,954	#17 OR #16 OR #15 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
# 17	215,027	TS=((model* or deliver* or framework*) NEAR/5 (care or healthcare or "health care" or service or services)) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
# 16	254,922	TS=(rehab or rehab*) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
# 15	9,632	TS= (aftercare or "after care" or "follow-up care") Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
# 14	3,587	#13 OR #1 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
# 13	3,254	#12 AND #2 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
# 12	518,616	#11 OR #10 OR #9 OR #8 OR #7 OR #6 OR #5 OR #4 OR #3 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
# 11	178,685	TS=("long haul" or "long hauler" or "long haulers" or longhaul* or (long NEAR/0 tail*) or longtail* or longduration* or "long duration" or "long durations" or longlast* or (long NEAR/0 last*) or longstanding* or "long standing" or "medium term*" or mediumterm*) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
# 10	9,133	TS=(nonrecover* or (non NEAR/0 recover*) or "not recover" or "not recovered" or "not recovering")

Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years

- # 9 1,973 TS=(("after discharge" or "after discharging" or "following discharge" or "following discharging" or postacute* or "post acute*" or postdischarge or postdischarging or "post discharge" or "post discharging" or posthospital* or "post-hospital" or "post-hospitalisation" or "post-hospitalization" or postinfect* or "post infection" or "post infective" or postviral* or "post viral" or postvirus* or "post virus" or postcritical or "post-critical" or postintensive or "post-intensive" or "post-ICU") NEAR/3 (complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering* or symptom* or recuperat*))
Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
- # 8 291,883 TS=((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium term" or mediumterm* or multisystem* or "multi-system" or ongoing or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute") NEAR/3 (complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering* or symptom* or recuperat*))
Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
- # 7 671 TS=(("after discharge" or "after discharging" or "following discharge" or "following discharging" or postacute* or "post acute*" or postdischarge or postdischarging or "post discharge" or "post discharging" or posthospital* or "post-hospital" or "post-hospitalisation" or "post-hospitalization" or postinfect* or "post infection" or "post infective" or postviral* or "post viral" or postvirus* or "post virus" or postcritical or "post-critical" or postintensive or "post-intensive" or "post-ICU") NEAR/3 recover*)
Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
- # 6 49,196 TS=((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system" or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") NEAR/3 recover*)
Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years
- # 5 85 TS=(("following COVID" or "following COVID-19" or "following COVID19" or "following coronavirus" or "following coronaviruses" or "following corona virus" or "following corona viruses" or "following 2019-nCoV" or "following 19nCoV" or "following 2019nCoV" or "following nCoV" or "following n-CoV" or "following CoV 2" or "following CoV2" or "following SARS-CoV-2" or "following SARS-CoV2" or "following SARSCoV-2" or "following SARSCoV2" or "following SARS2" or "following SARS-2" or "following severe acute respiratory syndrome coronavirus 2" or "following 2019-novel CoV" or "following SARS-coronavirus2" or "following SARS-coronavirus-2" or "following SARS-like coronavirus" or "following SARS-like

coronaviruses" or "following novel coronavirus" or "following novel coronaviruses" or "following novel corona virus" or "following novel corona viruses" or "following novel CoV" or "following OC43" or "following NL63" or "following 229E" or "following HKU1" or "following HCoV" or "following SARS-coronavirus" or "following SARS-coronaviruses") NEAR/3 (comorbid* or "co-morbid" or "co-morbidity" or "co-morbidities" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi-morbid" or "multi-morbidity" or "multi-morbidities" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*))

Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years

4 187

TS=("after COVID" or "after COVID-19" or "after COVID19" or "after coronavirus" or "after coronaviruses" or "after corona virus" or "after corona viruses" or "after 2019-nCoV" or "after 19nCoV" or "after 2019nCoV" or "after nCoV" or "after n-CoV" or "after CoV 2" or "after CoV2" or "after SARS-CoV-2" or "after SARS-CoV2" or "after SARSCoV-2" or "after SARSCoV2" or "after SARS2" or "after SARS-2" or "after severe acute respiratory syndrome coronavirus 2" or "after 2019-novel CoV" or "after SARS-coronavirus2" or "after SARS-coronavirus-2" or "after SARS-like coronavirus" or "after SARS-like coronaviruses" or "after novel coronavirus" or "after novel coronaviruses" or "after novel corona virus" or "after novel corona viruses" or "after novel CoV" or "after OC43" or "after NL63" or "after 229E" or "after HKU1" or "after HCoV" or "after SARS-coronavirus" or "after SARS-coronaviruses") NEAR/3 (comorbid* or "co-morbid" or "co-morbidity" or "co-morbidities" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi-morbid" or "multi-morbidity" or "multi-morbidities" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*))

Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years

3 146

TS=(("post-COVID" or "post-COVID-19" or "post-COVID19" or "post-coronavirus" or "post-coronaviruses" or "post-corona virus" or "post-corona viruses" or "post-2019-nCoV" or "post-19nCoV" or "post-2019nCoV" or "post-nCoV" or "post-n-CoV" or "post-CoV 2" or "post-CoV2" or "post-SARS-CoV-2" or "post-SARS-CoV2" or "post-SARSCoV-2" or "post-SARSCoV2" or "post-SARS2" or "post-SARS-2" or "post-severe acute respiratory syndrome coronavirus 2" or "post-2019-novel CoV" or "post-SARS-coronavirus2" or "post-SARS-coronavirus-2" or "post-SARS-like coronavirus" or "post-SARS-like coronaviruses" or "post-novel coronavirus" or "post-novel coronaviruses" or "post-novel corona virus" or "post-novel corona viruses" or "post-novel CoV" or "post-OC43" or "post-NL63" or "post-229E" or "post-HKU1" or "post-HCoV" or "post-SARS-coronavirus" or "post-SARS-coronaviruses") NEAR/3 (comorbid* or "co-morbid" or "co-morbidity" or "co-morbidities" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi-morbid" or "multi-morbidity" or "multi-morbidities" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*))

Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years

2 147,303 TOPIC: (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") OR TOPIC: ((coronavirus* or "corona virus" or "corona viruses") and (hubei or wuhan or beijing or shanghai)) OR TOPIC: (wuhan NEAR/5 virus*) OR TOPIC: (coronavirus* and pneumonia) OR TOPIC: ((novel or new or nouveau) NEAR/2 (CoV or nCoV or covid or coronavirus* or "corona virus" or "Pandemic 2")) OR TOPIC: ((coronavirus* or "corona virus" or "corona viruses") NEAR/2 "2019") OR TOPIC: ((coronavirus* or "corona virus" or "corona viruses") NEAR/2 "19") OR TITLE: ((coronavirus* or "corona virus" or "corona viruses"))

Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years

1 465 TOPIC: (long NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses")) OR TOPIC: (longterm NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses")) OR TOPIC: ("long-term" NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses")) OR TOPIC: (postacute NEAR/0 (COVID or "COVID-19" or

COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") OR TOPIC: ("post-acute" NEAR/0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses") OR TOPIC: (chronic* NEAR/2 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses")) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI Timespan=All years

Cochrane DSR

Search Name:

Date Run: 28/05/2021 02:32:04

Comment:

ID Search Hits

- #1 (long NEXT (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses")):ti,ab,kw 10
- #2 (longterm NEXT (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or

Care Models for Long COVID

"novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses")):ti,ab,kw 1

#3 ("long-term" NEXT (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses")):ti,ab,kw 1

#4 (postacute NEXT (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses")):ti,ab,kw 2

#5 ("post-acute" NEXT (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses")):ti,ab,kw 2

#6 (chronic* NEAR/2 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses")):ti,ab,kw 6

#7 [or #1-#6] 18

#8 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "SARS-coronavirus2" or "SARS-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" or "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "SARS-coronavirus" or "SARS-coronaviruses"):ti,ab,kw 5328

#9 ((coronavirus* or "corona virus" or "corona viruses") and (hubei or wuhan or beijing or shanghai)):ti,ab,kw 181

#10 (wuhan NEAR/5 virus*):ti,ab,kw 8

#11 (coronavirus* and pneumonia):ti,ab,kw 904

#12 ((novel or new or nouveau) NEAR/2 (CoV or nCoV or covid or coronavirus* or "corona virus" or "Pandemic 2")):ti,ab,kw 517

#13 ((coronavirus* or "corona virus" or "corona viruses") NEAR/2 "2019"):ti,ab,kw 1250

#14 ((coronavirus* or "corona virus" or "corona viruses") NEAR/2 "19"):ti,ab,kw 236

#15 (coronavirus* or "corona virus" or "corona viruses"):ti 628

#16 [or #8-#15] 5328

#17 (("post-COVID" or "post-COVID-19" or "post-COVID19" or "post-coronavirus" or "post-coronaviruses" or "post-corona virus" or "post-corona viruses" or "post-2019-nCoV" or "post-19nCoV" or "post-2019nCoV" or "post-nCoV" or "post-n-CoV" or "post-CoV 2" or "post-CoV2" or "post-SARS-CoV-2" or "post-SARS-CoV2" or "post-SARSCoV-2" or "post-SARSCoV2" or "post-SARS2" or "post-SARS-2" or "post-severe acute respiratory syndrome coronavirus 2" or "post-2019-novel CoV" or "post-SARS-coronavirus2" or "post-SARS-coronavirus-2" or "post-SARS-like coronavirus" or "post-SARS-like coronaviruses" or "post-novel coronavirus" or "post-novel coronaviruses" or "post-novel corona virus" or "post-novel corona viruses" or "post-novel CoV" or "post-OC43" or "post-NL63" or "post-229E" or "post-HKU1" or "post-HCoV" or "post-SARS-coronavirus" or "post-SARS-coronaviruses") NEAR/3 (comorbid* or "co-morbid" or "co-morbidity" or "co-morbidities" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi-morbid" or "multi-morbidity" or "multi-morbidities" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)):ti,ab,kw 10

#18 (("after COVID" or "after COVID-19" or "after COVID19" or "after coronavirus" or "after coronaviruses" or "after corona virus" or "after corona viruses" or "after 2019-nCoV" or "after 19nCoV" or "after 2019nCoV" or "after nCoV" or "after n-CoV" or "after CoV 2" or "after CoV2" or "after SARS-CoV-2" or "after SARS-CoV2" or "after SARSCoV-2" or "after SARSCoV2" or "after SARS2" or "after SARS-2" or "after severe acute respiratory syndrome coronavirus 2" or "after 2019-novel CoV" or "after SARS-coronavirus2" or "after SARS-coronavirus-2" or "after SARS-like coronavirus" or "after SARS-like coronaviruses" or "after novel coronavirus" or "after novel coronaviruses" or "after novel corona virus" or "after novel corona viruses" or "after novel CoV" or "after OC43" or "after NL63" or "after 229E" or "after HKU1" or "after HCoV" or "after SARS-coronavirus" or "after SARS-coronaviruses") NEAR/3 (comorbid* or "co-morbid" or "co-morbidity" or "co-morbidities" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi-morbid" or "multi-morbidity" or "multi-morbidities" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)):ti,ab,kw 10

#19 (("following COVID" or "following COVID-19" or "following COVID19" or "following coronavirus" or "following coronaviruses" or "following corona virus" or "following corona viruses" or "following 2019-nCoV" or "following 19nCoV" or "following 2019nCoV" or "following nCoV" or "following n-CoV" or "following CoV 2" or "following CoV2" or "following SARS-CoV-2" or "following SARS-CoV2" or "following SARSCoV-2" or "following SARSCoV2" or "following SARS2" or "following SARS-2" or "following severe acute respiratory syndrome coronavirus 2" or "following 2019-novel CoV" or "following SARS-coronavirus2" or "following SARS-coronavirus-2" or "following SARS-like coronavirus" or "following SARS-like coronaviruses" or "following novel coronavirus" or "following novel coronaviruses" or "following novel corona virus" or "following novel corona viruses" or "following novel CoV" or "following OC43" or "following NL63" or "following 229E" or "following HKU1" or "following HCoV" or "following SARS-coronavirus" or "following SARS-coronaviruses") NEAR/3 (comorbid* or "co-morbid" or "co-morbidity" or "co-morbidities" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi-morbid" or "multi-morbidity" or "multi-morbidities" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)):ti,ab,kw 4

#20 ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system" or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") NEAR/3 recover*)):ti,ab,kw 4166

#21 (("after discharge" or "after discharging" or "following discharge" or "following discharging" or postacute* or "post acute*" or postdischarge or postdischarging or "post discharge" or "post discharging" or posthospital* or "post-hospital" or "post-hospitalisation" or "post-hospitalization" or



postinfect* or "post infection" or "post infective" or postviral* or "post viral" or postvirus* or "post virus" or postcritical or "post-critical" or postintensive or "post-intensive" or "post-ICU") NEAR/3

recover*):ti,ab,kw 137

#22 ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium term" or mediumterm* or multisystem* or "multi-system" or ongoing or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute") NEAR/3 (complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering* or symptom* or recuperat*)):ti,ab,kw 30796

#23 (("after discharge" or "after discharging" or "following discharge" or "following discharging" or postacute* or "post acute*" or postdischarge or postdischarging or "post discharge" or "post discharging" or posthospital* or "post-hospital" or "post-hospitalisation" or "post-hospitalization" or postinfect* or "post infection" or "post infective" or postviral* or "post viral" or postvirus* or "post virus" or postcritical or "post-critical" or postintensive or "post-intensive" or "post-ICU") NEAR/3

(complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering* or symptom* or recuperat*)):ti,ab,kw 278

#24 (nonrecover* or (non NEAR/0 recover*) or "not recover" or "not recovered" or "not recovering"):ti,ab,kw 385

#25 ("long haul" or "long hauler" or "long haulers" or longhaul* or (long NEAR/0 tail*) or longtail* or longduration* or "long duration" or "long durations" or longlast* or (long NEAR/0 last*) or longstanding* or "long standing" or "medium term*" or mediumterm*):ti,ab,kw 7296

#26 [or #17-#25] 41941

#27 #16 AND #26 179

#28 #7 OR #27 187

DSR – 3

CENTRAL – 183 (*did not download*)

Editorial – 1 (*did not download*)

Additional Databases

2021 Oct 7

PsycINFO

Database: APA PsycInfo <1806 to September Week 4 2021>

Search Strategy:

1 (long adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*)):tw,id. (13)

2 ((longterm or long-term) adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like

Care Models for Long COVID

coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*).tw,id. (4)

3 ((postacute or post-acute) adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*).tw,id. (0)

4 (chronic* adj2 (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*).tw,id. (7)

5 coronavirus/ and syndromes/ (42)

6 or/1-5 [LONG COVID - PT 1] (64)

7 coronavirus/ (3062)

8 (COVID-19 or COVID19).tw,id. (9360)

9 ((coronavirus* or corona virus*) and (hubei or wuhan or beijing or shanghai)).tw,id. (153)

10 (wuhan adj5 virus*).tw,id. (5)

11 (2019-nCoV or 19nCoV or 2019nCoV).tw,id. (36)

12 (nCoV or n-CoV or "CoV 2" or CoV2).tw,id. (805)

13 (SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2).tw,id. (801)

14 (2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or ((novel or new or nouveau) adj2 (CoV or nCoV or covid or coronavirus* or corona virus or Pandemi*2)) or (coronavirus* and pneumonia)).tw,id. (673)

15 (novel coronavirus* or novel corona virus* or novel CoV).tw,id. (440)

16 ((coronavirus* or corona virus*) adj2 "2019").tw,id. (1137)

17 ((coronavirus* or corona virus*) adj2 "19").tw,id. (359)

18 (coronavirus 2 or corona virus 2).tw,id. (193)

19 (OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*).tw,id. (24)

20 (coronavirus* or corona virus*).ti. (556)

21 or/7-20 [COVID-19] (9676)

22 (post adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)).tw,id. (6)

23 (after adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or

illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*).tw,id. (9)

24 (following adj (COVID or COVID-19 or COVID19 or coronavirus* or corona virus* or 2019-nCoV or 19nCoV or 2019nCoV or nCoV or n-CoV or "CoV 2" or CoV2 or SARS-CoV-2 or SARS-CoV2 or SARSCoV-2 or SARSCoV2 or SARS2 or SARS-2 or severe acute respiratory syndrome coronavirus 2 or 2019-novel CoV or Sars-coronavirus2 or Sars-coronavirus-2 or SARS-like coronavirus* or novel coronavirus* or novel corona virus* or novel CoV or OC43 or NL63 or 229E or HKU1 or HCoV* or Sars-coronavirus*) adj3 (comorbid* or "co morbid*" or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or "multi morbid*" or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*).tw,id. (6)

25 ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system*" or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") adj3 recover*).tw,id. (6708)

26 ((after discharg* or following discharg* or postacute* or "post acute*" or postdischarg* or "post discharge" or "post discharging" or posthospital* or post-hospital* or postinfect* or "post infection" or "post infective*" or postviral* or "post viral*" or postvirus* or "post virus*" or postcritical or post-critical or postintensive or post-intensive or post-ICU) adj3 recover*).tw,id. (141)

27 ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium* term*" or mediumterm* or multisystem* or "multi system*" or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or "sub acute*") adj3 (complication? or consequence? or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering? or symptom* or recuperat*).tw,id. (58139)

28 ((after discharg* or following discharg* or postacute* or "post acute*" or postdischarg* or "post discharge" or "post discharging" or posthospital* or post-hospital* or postinfect* or "post infection" or "post infective*" or postviral* or "post viral*" or postvirus* or "post virus*" or postcritical or post-critical or postintensive or post-intensive or post-ICU) adj3 (complication? or consequence? or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering? or symptom* or recuperat*).tw,id. (281)

29 (nonrecover* or "non recover*" or "not recover*").tw,id. (826)

30 ("long* haul*" or longhaul* or "long* tail*" or longtail* or longduration* or "long duration*" or longlast* or "long last*" or longstanding* or "long standing*" or "medium* term*" or mediumterm*).tw,id. (26107)

31 or/22-30 [LONG-TERM ILLNESS, PROTRACTED RECOVERY, ETC.] (89273)

32 21 and 31 [LONG COVID - PT 2] (375)

33 "recovery (disorders)"/ (13482)

34 21 and 33 [LONG COVID - PT 3] (27)

35 6 or 32 or 34 [LONG COVID] (439)

36 aftercare/ (1122)

37 outpatient treatment/ (7123)

38 outpatients/ (7445)

39 outpatient treatment/ (7123)

40 health care delivery/ (21502)

41 primary health care/ (19419)

42 client treatment matching/ (1173)

43 exp treatment planning/ (9801)

44 exp rehabilitation/ (51323)

45 exp clinical models/ (3871)
 46 (aftercare or after care or follow-up care).tw,id. (4191)
 47 (rehab or rehabil*).tw,id. (66636)
 48 ((model* or deliver* or framework?) adj5 (care or healthcare or health care or service or services)).tw,id. (57690)
 49 or/36-48 [CARE MODELS] (194773)
 50 35 and 49 [LONG COVID - CARE MODELS] (46)
 51 treatment guidelines/ (7858)
 52 (position statement* or policy statement* or practice parameter* or practice point? or best practice*).tw,id. (19503)
 53 (standards or guidance or guideline or guidelines).ti,id. (46168)
 54 ((practice or treatment* or clinical) adj (guidance or guideline*)).ab. (8671)
 55 (CPG or CPGs).ti. (136)
 56 consensus*.ti,id. (4359)
 57 consensus*.ab. /freq=2 (5182)
 58 ((care or critical or clinical or practice) adj2 (algorithm* or path or paths or pathway or pathways or protocol*)).tw,id. (4361)
 59 recommendat*.ti,id. (10189)
 60 (overview? adj2 (guidance or guideline?)).tw,id. (50)
 61 exp "Clinical Judgment (Not Diagnosis)"/ (5096)
 62 decision making/ (79020)
 63 ((clinical or medical) adj (decision* or reasoning?)).tw,id. (9237)
 64 or/51-63 [CPG FILTER] (177315)
 65 35 and 64 [LONG COVID - CPGS] (19)
 66 "systematic review"/ (637)
 67 meta analysis/ (5080)
 68 (meta-analy* or metanaly* or metaanaly* or met analy* or integrative research or integrative review* or integrative overview* or research integration or research overview* or collaborative review*).tw,id. (46085)
 69 (systematic review* or systematic overview* or evidence-based review* or evidence-based overview* or (evidence adj3 (review* or overview*)) or meta-review* or meta-overview* or meta-synthes* or rapid review* or "review of reviews" or umbrella review? or technology assessment* or HTA or HTAs).tw,id. (55175)
 70 (network adj (MA or MAs)).tw,id. (0)
 71 (NMA or NMAs or MTC or MTCs or MAIC or MAICs).tw,id. (395)
 72 indirect* compar*.tw,id. (211)
 73 (indirect treatment* adj1 compar*).tw,id. (23)
 74 (mixed treatment* adj1 compar*).tw,id. (57)
 75 (multiple treatment* adj1 compar*).tw,id. (33)
 76 (multi-treatment* adj1 compar*).tw,id. (0)
 77 simultaneous* compar*.tw,id. (231)
 78 mixed comparison?.tw,id. (11)
 79 or/66-78 [REVIEW FILTER] (89322)
 80 35 and 79 [LONG COVID - REVIEWS] (21)
 81 50 or 65 or 80 [LONG COVID - MODELS OF CARE, CPGS, REVIEWS] (80)



CINAHL

#	Query	Limiters/Expanders	Last Run Via	Results
S83	S50 OR S66 OR S82	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	716
S82	S39 AND S81	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	153
S81	S67 OR S68 OR S69 OR S70 OR S71 OR S72 OR S73 OR S74 OR S75 OR S76 OR S77 OR S78 OR S79 OR S80	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	218,602
S80	TI mixed W0 comparison* OR AB mixed W0 comparison*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	9



S79	TI simultaneous* W0 compar* OR AB simultaneous* W0 compar*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	170
S78	TI (multi W0 treatment*) N1 compar* OR AB (multi W0 treatment*) N1 compar*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	2
S77	TI (multiple W0 treatment*) N1 compar* OR AB (multiple W0 treatment*) N1 compar*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	79
S76	TI (mixed W0 treatment*) N1 compar* OR AB (mixed W0 treatment*) N1 compar*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	216
S75	TI (indirect W0 treatment*) N1 compar* OR AB (indirect W0 treatment*) N1 compar*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen	128



			- Advanced Search Database - CINAHL Plus with Full Text	
S74	TI indirect* W0 compar* OR AB indirect* W0 compar*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	880
S73	TI (NMA or NMAs or MTC or MTCs or MAIC or MAICs) OR AB (NMA or NMAs or MTC or MTCs or MAIC or MAICs)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	1,261
S72	TI (network W0 (MA or MAs)) OR AB (network W0 (MA or MAs))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	6
S71	TI ((systematic W0 review*) or (systematic W0 overview*) or ("evidence-based" W0 review*) or ("evidence-based" W0 overview*) or (evidence N3 (review* or overview*)) or (meta W0 review*) or (meta W0 overview*) or (meta W0 syntheses*) or (rapid W0 review*) or "review of reviews" or (umbrella W0 review*) or (technology W0 assessment*) or HTA or HTAs)) OR AB ((systematic W0 review*) or (systematic W0 overview*) or ("evidence-based" W0 review*) or	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	136,090



	("evidence-based" W0 overview*) or (evidence N3 (review* or overview*)) or (meta W0 review*) or (meta W0 overview*) or (meta W0 syntheses*) or (rapid W0 review*) or "review of reviews" or (umbrella W0 review*) or (technology W0 assessment*) or HTA or HTAs)			
S70	TI ((meta W0 analy*) or metanaly* or metaanaly* or (met W0 analy*) or "integrative research" or (integrative W0 review*) or (integrative W0 overview*) or "research integration" or (research W0 overview*) or (collaborative W0 review*)) OR AB ((meta W0 analy*) or metanaly* or metaanaly* or (met W0 analy*) or "integrative research" or (integrative W0 review*) or (integrative W0 overview*) or "research integration" or (research W0 overview*) or (collaborative W0 review*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	90,984
S69	(MH "Meta Analysis") OR (MH "Meta Synthesis")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	58,772
S68	(MH "Scoping Review")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	3,436
S67	(MH "Systematic Review")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database -	100,230



			CINAHL Plus with Full Text	
S66	S39 AND S65	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	178
S65	S51 OR S52 OR S53 OR S54 OR S55 OR S56 OR S57 OR S58 OR S59 OR S60 OR S61 OR S62 OR S63 OR S64	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	276,018
S64	TI ((clinical or medical) W0 (decision* or reasoning*)) OR AB ((clinical or medical) W0 (decision* or reasoning*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	21,825
S63	(MH "Decision Making, Clinical+")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	34,265
S62	TI (overview* N2 (guidance or guideline*)) OR AB (overview* N2 (guidance or guideline*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research	216



			Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	
S61	TI recommendat*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	20,023
S60	TI ((care or critical or clinical or practice) N2 (algorithm* or path or paths or pathway or pathways or protocol*)) OR AB ((care or critical or clinical or practice) N2 (algorithm* or path or paths or pathway or pathways or protocol*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	18,930
S59	TI consensus*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	9,422
S58	TI CPG or CPGs	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database -	370



			CINAHL Plus with Full Text	
S57	AB (practice or treatment* or clinical) W0 (guidance or guideline*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	21,502
S56	TI standards or guidance or guideline or guidelines	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	88,002
S55	TI ((position W0 statement*) or (policy W0 statement*) or (practice W0 parameter*) or (practice W0 point*) or (best W0 practice*)) OR AB ((position W0 statement*) or (policy W0 statement*) or (practice W0 parameter*) or (practice W0 point*) or (best W0 practice*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	28,368
S54	(MH "Practice Guidelines")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	82,362
S53	(MH "Consensus")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research	5,590



			Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	
S52	(MH "Patient Care Plans")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	7,286
S51	(MH "Critical Path")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	5,631
S50	S39 AND S49	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	459
S49	S40 OR S41 OR S42 OR S43 OR S44 OR S45 OR S46 OR S47 OR S48	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database -	577,420



			CINAHL Plus with Full Text	
S48	TI ((model* or deliver* or framework*) N5 (care or healthcare or "health care" or service or services)) OR AB ((model* or deliver* or framework*) N5 (care or healthcare or "health care" or service or services))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	96,376
S47	TI (rehab or rehabil*) OR AB (rehab or rehabil*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	103,793
S46	TI (aftercare or "after care" or "follow-up care") OR AB (aftercare or "after care" or "follow-up care")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	4,481
S45	(MH "Rehabilitation+")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	309,692
S44	(MH "Outpatient Service")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research	10,000



			Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	
S43	(MH "Outpatients")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	48,357
S42	(MH "Health Care Delivery")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	57,396
S41	(MH "Ambulatory Care")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	13,190
S40	(MH "After Care")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database -	16,658



			CINAHL Plus with Full Text	
S39	S7 OR S36 OR S38	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	3,363
S38	S25 AND S37	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	439
S37	(MH "Recovery")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	35,621
S36	S25 AND S35	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	3,044
S35	S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34	Search modes - Boolean/Phrase	Interface - EBSCOhost Research	201,248



			Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	
S34	TI ((long* W0 haul*) or longhaul* or (long* W0 tail*) or longtail* or longduration* or (long W0 duration*) or longlast* or (long W0 last*) or longstanding* or (long W0 standing*) or (medium* W0 term*) or mediumterm*) OR AB ((long* W0 haul*) or longhaul* or (long* W0 tail*) or longtail* or longduration* or (long W0 duration*) or longlast* or (long W0 last*) or longstanding* or (long W0 standing*) or (medium* W0 term*) or mediumterm*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	18,554
S33	TI (nonrecover* or (non W0 recover*) or ("not" W0 recover*)) OR AB (nonrecover* or (non W0 recover*) or ("not" W0 recover*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	110,543
S32	TI (((after W0 discharg*) or (following W0 discharg*) or postacute* or "post acute" or postdischarg* or "post discharge" or "post discharging" or posthospital* or (post W0 hospital*) or postinfect* or "post infection" or "post infective" or postviral* or (post W0 viral*) or postvirus* or (post W0 virus*) or postcritical or post-critical or postintensive or (post W0 intensive) or "post-ICU") N3 (complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering* or symptom* or recuperat*)) OR AB (((after W0 discharg*) or (following W0 discharg*) or postacute* or "post acute" or postdischarg* or "post discharge" or "post discharging" or posthospital* or (post W0 hospital*) or postinfect* or "post infection" or "post infective" or postviral* or (post W0 viral*) or postvirus* or (post W0 virus*) or postcritical or	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	898



	post-critical or postintensive or (post W0 intensive) or "post-ICU") N3 (complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering* or symptom* or recuperat*))			
S31	TI ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium term" or "medium terms" or mediumterm* or multisystem* or (multi W0 system*) or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or (sub W0 acute*)) N3 (complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering* or symptom* or recuperat*)) OR AB ((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium term" or "medium terms" or mediumterm* or multisystem* or (multi W0 system*) or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or (sub W0 acute*)) N3 (complication* or consequence* or convalescen* or disabilit* or feature* or illness* or prognos* or sequela* or sign or signs or suffering* or symptom* or recuperat*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	78,413
S30	TI (((after W0 discharg*) or (following W0 discharg*) or postacute* or "post acute" or postdischarg* or "post discharge" or "post discharging" or posthospital* or (post W0 hospital*) or postinfect* or "post infection" or "post infective" or postviral* or (post W0 viral*) or postvirus* or (post W0 virus*) or postcritical or post-critical or postintensive or (post W0 intensive) or "post-ICU") N3 recover*) OR AB (((after W0 discharg*) or (following W0 discharg*) or postacute* or "post acute" or postdischarg* or "post discharge" or "post discharging" or posthospital* or (post W0 hospital*) or postinfect* or "post infection" or	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	361



	"post infective" or postviral* or (post W0 viral*) or postvirus* or (post W0 virus*) or postcritical or post-critical or postintensive or (post W0 intensive) or "post-ICU") N3 recover*)			
S29	TI (((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium term" or "medium terms" or mediumterm* or multisystem* or (multi W0 system*) or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or (sub W0 acute*)) N3 recover*)) OR AB (((chronic* or continuous* or continual* or continuing* or delay* or endur* or extend* or fluctuat* or gradual* or lasting* or legacy* or lengthy* or linger* or long* or "medium term" or "medium terms" or mediumterm* or multisystem* or (multi W0 system*) or ongoing* or permanent* or persist* or prolong* or protract* or relaps* or remission* or remit* or residual* or slow* or subacute* or (sub W0 acute*)) N3 recover*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	8,553
S28	TI ((following N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") N3 (comorbid* or (co W0 morbid*) or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or (multi W0 morbid*) or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)) OR AB ((following N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	58



	CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") N3 (comorbid* or (co W0 morbid*) or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or (multi W0 morbid*) or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*))			
S27	TI ((after N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") N3 (comorbid* or (co W0 morbid*) or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or (multi W0 morbid*) or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)) OR AB ((after N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	148



	or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") N3 (comorbid* or (co W0 morbid*) or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or (multi W0 morbid*) or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*))			
S26	TI ((post N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") N3 (comorbid* or (co W0 morbid*) or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or (multi W0 morbid*) or sickness* or symptom* or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*)) OR AB ((post N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") N3 (comorbid* or (co W0 morbid*) or condition* or convalescen* or disease* or disorder* or illness* or multimorbid* or (multi W0 morbid*) or sickness* or symptom*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	62



	or syndrome* or sign or signs or prognos* or recuperat* or survivor* or survival* or risk*))			
S25	S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	65,861
S24	TI coronavirus* or (corona W0 virus*)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	6,286
S23	TI (OC43 or NL63 or 229E or HKU1 or HCoV* or (Sars W0 coronavirus*)) OR AB (OC43 or NL63 or 229E or HKU1 or HCoV* or (Sars W0 coronavirus*))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	284
S22	TI ("coronavirus 2" or "corona virus 2") OR AB ("coronavirus 2" or "corona virus 2")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	3,211
S21	TI ((coronavirus* or (corona W0 virus*)) N2 "19") OR AB ((coronavirus* or (corona W0 virus*)) N2 "19")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research	197



			Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	
S20	TI ((coronavirus* or (corona W0 virus*)) N2 "2019") OR AB ((coronavirus* or (corona W0 virus*)) N2 "2019")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	9,595
S19	TI ((novel W0 coronavirus*) or ("novel corona" W0 virus*) or "novel CoV") OR AB ((novel W0 coronavirus*) or ("novel corona" W0 virus*) or "novel CoV")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	2,362
S18	TI ("2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or ((novel or new or nouveau) N2 (CoV or nCoV or covid or coronavirus* or "corona virus" or "Pandemic 2")) or (coronavirus* and pneumonia)) OR AB ("2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or ((novel or new or nouveau) N2 (CoV or nCoV or covid or coronavirus* or "corona virus" or "Pandemic 2")) or (coronavirus* and pneumonia))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	4,512
S17	TI ("SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2") OR AB ("SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced	9,797



	or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2")		Search Database - CINAHL Plus with Full Text	
S16	TI (nCoV or "n-CoV" or "CoV 2" or CoV2) OR AB (nCoV or "n-CoV" or "CoV 2" or CoV2)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	168
S15	TI ("2019-nCoV" or 19nCoV or 2019nCoV) OR AB ("2019-nCoV" or 19nCoV or 2019nCoV)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	265
S14	TI wuhan N5 virus* OR AB wuhan N5 virus*	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	57
S13	TI ((coronavirus* or "corona virus" or "corona viruses") and (hubei or wuhan or beijing or shanghai)) OR AB ((coronavirus* or "corona virus" or "corona viruses") and (hubei or wuhan or beijing or shanghai))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	1,064



S12	TI ("COVID-19" or COVID19) OR AB ("COVID-19" or COVID19)	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	55,199
S11	(MH "Coronavirus Infections")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	9,955
S10	(MH "Coronavirus")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	1,002
S9	(MH "SARS-CoV-2")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	552
S8	(MH "COVID-19")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen	19,168



			- Advanced Search Database - CINAHL Plus with Full Text	
S7	S1 OR S2 OR S3 OR S4 OR S5 OR S6	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	354
S6	(MH "SARS-CoV-2") AND ((MH "Syndrome") OR (MH "Undiagnosed Diseases"))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	1
S5	(MH "COVID-19") AND ((MH "Syndrome") OR (MH "Undiagnosed Diseases"))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	9
S4	TI (chronic* N2 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	114



	<p>or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") OR AB (chronic* N2 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses"))</p>			
S3	<p>TI ((postacute or "post-acute") N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses") OR AB ((postacute or "post-acute") N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses"</p>	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	26



	or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses"))			
S2	TI ((longterm or "long-term") N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses")) OR AB ((longterm or "long-term") N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses"))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	25
S1	TI (long N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses"))	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL Plus with Full Text	206



<p>or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses")) OR AB (long N0 (COVID or "COVID-19" or COVID19 or coronavirus* or "corona virus" or "corona viruses" or "2019-nCoV" or 19nCoV or 2019nCoV or nCoV or "n-CoV" or "CoV 2" or CoV2 or "SARS-CoV-2" or "SARS-CoV2" or "SARSCoV-2" or SARSCoV2 or SARS2 or "SARS-2" or "severe acute respiratory syndrome coronavirus 2" or "2019-novel CoV" or "Sars-coronavirus2" or "Sars-coronavirus-2" or "SARS-like coronavirus" or "SARS-like coronaviruses" or "novel coronavirus" or "novel coronaviruses" or "novel corona virus" "novel corona viruses" or "novel CoV" or OC43 or NL63 or 229E or HKU1 or HCoV* or "Sars-coronavirus" or "sars-coronaviruses"))</p>			
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