



Canada's Drug and
Health Technology Agency

CADTH Literature Search Strategy

Post-COVID-19 Condition Treatment and Management Rapid Scoping Review



Overview

The literature search was performed by an information specialist using a peer-reviewed search strategy according to the PRESS (Peer Review of Electronic Search Strategies) checklist.¹ See the Bibliographic Database Strategy section below for the full strategy.

Published literature was identified by searching the following bibliographic databases: MEDLINE and Embase via the Ovid platform, and the Cochrane Database of Systematic Reviews. All Ovid searches were run simultaneously as a multi-file search. Duplicates were removed using Ovid deduplication for multi-file searches, followed by manual deduplication in Endnote, except for the July 17, 2023 alert where all duplicates were removed in Endnote. The literature search strategy used in this report is a modified continuation of one developed for the initial CADTH post-COVID-19 condition scoping review² and the update in December 2022.³ The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. Subject headings and search fields have been customized for each database. The main search concept was post-COVID-19 condition or synonyms, combined with a concept for treatment and management. Parts of the post-COVID-19 concept were adapted from CADTH's COVID-19 search string.⁴

The search for the initial scoping review² was limited to English or French-language documents published between January 1, 2019 and December 21, 2021, with search updates until February 4, 2022. For the current review, database searches were run on July 20, 2022, with search updates to July 17, 2023, to capture any articles made available on post-COVID-19 treatment or management since the initial search date. New search terms were added in April 2023. The new terms (marked in the strategy below in square brackets) included new treatments for the treatment and management concept; and the 2023 MeSH for Post-Acute COVID-19 Syndrome for the Medline search. To ensure any older studies with the new terms were captured, the entire search was re-run back to January 1, 2019, and duplicates removed. Where possible, retrieval was limited to the human population. No filters were applied to limit the retrieval by study type. Conference abstracts and preprints were excluded, as well as comments, newspaper articles, editorials, and letters.

Grey literature (literature that is not commercially published) was identified by searching sources listed in relevant sections of the *Grey Matters: A Practical Tool For Searching Health-Related Grey Literature checklist*,⁵ and the *CADTH COVID-19 Grey Literature Resources*⁶ which includes the websites of regulatory agencies, health technology assessment (HTA) agencies, clinical guideline repositories, systematic review repositories, patient-related groups, and professional associations. Google was used to search for additional internet-based materials. These searches were supplemented by reviewing bibliographies of key papers and through contacts with experts (via email), as appropriate. See the Grey Literature section below for more information on the grey literature search strategy.



Bibliographic Database Strategy

Interface: Ovid

Databases:

- MEDLINE All (1946 to July 17, 2023) via Ovid.
- Embase (1974 to July 17, 2023) via Ovid.

Search coverage for the scoping review: January 1, 2019 – July 17, 2023.

Date of last alert incorporated: July 17, 2023. (Search run on July 18.)

Alerts: Database search updates were run every 3 months until completion of the living review in July 2023.

Search filters applied: No filters were applied to limit the retrieval by study type. Comments, newspaper articles, editorials, and letters were removed.

Limits:

- Humans.
- Languages: English or French.

Table 1: Ovid Syntax Guide

Syntax	Description
/	At the end of a phrase, searches the phrase as a subject heading
MeSH	Medical Subject Heading
.fs	Floating subheading
exp	Explode a subject heading
*	Before a word, indicates that the marked subject heading is a primary topic; or, after a word, a truncation symbol (wildcard) to retrieve plurals or varying endings
#	Truncation symbol for one character
?	Truncation symbol for one or no characters only
adj#	Requires terms to be adjacent to each other within # number of words (in any order)
.ti	Title
.ot	Original title
.ab	Abstract
.hw	Heading word; usually includes subject headings and controlled vocabulary
.kf	Author keyword heading word (MEDLINE, Embase)
.nm	Name of substance, including CAS and other registry numbers and chemical names (MEDLINE)



Syntax	Description
.ox	Organism supplementary concept word for emerging virus and other organism terms (MEDLINE)
.rx	Rare disease supplementary concept for emerging rare disease terms (MEDLINE)
.px	Protocol supplementary concept (MEDLINE)
freq=#	requires that the term(s) occur # number of times or more within the field(s) searched
.pt	Publication type
.ez	Medline Entrez date (YYYYMMDD with * for any truncation)
.da	Medline entry date (YYYYMMDD with * for any truncation)
.dt	Medline creation date (YYYYMMDD with * for any truncation)
Limit to dc	Embase date created. Format as: dc=YYYYMMDD-YYYYMMDD
[]	Square brackets are used for comments within an Ovid search.
medall	Ovid database code: MEDLINE All, 1946 to present, updated daily
oomezd	Ovid database code; Embase, 1974 to present, updated daily

Ovid Multi-Database Search – Medline and Embase

Database files MEDLINE All (1946 to July 17, 2023) via Ovid; Embase (1974 to July 17, 2023) via Ovid; search run on July 18, 2023.

Medline post-COVID-19 treatment or management terms by themselves

1. Post-Acute COVID-19 Syndrome/th [Therapy heading for Medline MeSH added 2023]
2. ((post covid* or post coronavirus* or long covid* or long coronavirus*) adj2 (treatment* or management)).ab.
3. 1 or 2

Medline main post-COVID-19 concept

4. Post-Acute COVID-19 Syndrome/ [Medline MeSH added 2023]
5. (long COVID* or long coronavirus* or longCOVID* or longcoronavirus*).ti,ab,kf.
6. (sequela* adj5 (COVID* or coronavirus* or corona virus* or SARS-COV-2 or SARS-COV2 or SARSCOV-2 or SARSCOV2)).ti,ab,kf.
7. ((post or chronic or long term or longterm) adj3 (COVID* or coronavirus* or corona virus* or SARS-COV-2 or SARS-COV2 or SARSCOV-2 or SARSCOV2) adj4 (condition* or sequela* or syndrome* or subsyndrome* or clinical syndrome* or disorder* or symptom* or outcome* or clinical outcome* or function* or followup or follow-up or subtyp* or sub-typ* or phenotyp* or complication* or survivor*)).ti,ab,kf.



8. ((post acute or postacute or late complication*) adj3 (COVID* or coronavirus* or corona virus* or SARS-COV-2 or SARS-COV2 or SARSCOV-2 or SARSCOV2)).ti,ab,kf.
9. PASC.ti,kf.
10. (post-COVID* adj fatigue).ti,ab,kf.
11. OR/4-10

Medline COVID-19

12. COVID-19/ or SARS-CoV-2/
13. (COVID* or coronavirus* or corona virus* or 2019nCoV or 19nCoV or COVID19* or COVID or SARS-COV-2 or SARSCOV-2 or SARS-COV2 or SARSCOV2 or SARS coronavirus 2 or Severe Acute Respiratory Syndrome Coronavirus 2 or Severe Acute Respiratory Syndrome Corona Virus 2).ti,ab,kf,nm,ot,ox,rx,px.
14. 12 or 13

Medline additional post-COVID-19 terms and subtypes, to combine with COVID-19 set

15. (((post acute or postacute or sub-acute or subacute or chronic or long or longterm or late) adj sequela*) or PASC).ti,ab,kf.
16. (long haul* or longhaul*).ti,ab,kf.
17. ((persist* or long* or residual or prolonged) adj8 ((olfactory or chemosensor*) adj (disorder* or dysfunction*))).ti,ab,kf.
18. (post* or chronic* or long or longterm or sequela*).ti,ab,kf.
19. (PFS or (pulmonary adj3 fibro*) or (lung adj3 fibro*) or fatigue syndrome? or myalgic encephalomyelitis or ME-CFS or ME?CFS or (postural adj3 tachycardia*) or POTS or MIS-C or MIS-A or PIMS or PIMSTS or PIMS-TS).ti,ab,kf.
20. ((multisystem* or multi-system*) adj3 (inflamm* or hyperinflamm*)).ti,ab,kf.
21. 18 and (19 or 20)
22. or/15-17,21
23. 14 and 22

Medline treatment or management concept

24. Therapeutics/
25. (dh or dt or pd or su).fs.
26. (treatment* or therap* or management or managing or drug? or medication? or pharmacolog* or pharmaceutical* or non-drug? or nonpharmacolog* or non-pharmacolog* or biologic or biologics or diet* or supplement* or vitamin* or treat or treated or treating or placebo* or off-label*).ti,kf.

27. (treatment* or therap* or management or managing or drug? or medication? or pharmacolog* or pharmaceutic* or non-drug? or nonpharmacolog* or non-pharmacolog* or biologic or biologics or diet* or supplement* or vitamin* or treat or treated or treating or placebo* or off-label*).ab. /freq=3
28. ((care or treatment or healthcare) adj2 (model* or path* or plan*)).ti,ab,kf.
29. ((interdisciplin* or inter-disciplin* or cross-disciplin* or multidiscipline* or multi-disciplin* or inter-disciplin*) adj3 (team* or clinic? or centre? or center? or model* or program*)).ti,ab,kf.
30. (recovery adj2 (team* or clinic? or centre? or center? or model* or program*)).ti,ab,kf.
31. (care adj2 (coordinat* or co-ordinat*)).ti,ab,kf.
32. (patient-centred care or patient-centered care or case manag*).ti,ab,kf.
33. exp Drug Therapy/ or exp Biological Therapy/ or exp "Nebulizers and Vaporizers"/
34. (infusion* or inhaler* or nasal spray* or nebulize*).ti,ab,kf.
35. vaccin*.ti,kf.
36. vaccin*.ab. /freq=3
37. (anticoagulants or (anticoagulant* adj2 (therap* or oral* or intravenous* or IV)) or apixaban* or clopidogrel* or heparin*).ti,ab,kf.
38. (aceclofenac* or antibiotic* or antidepressant* or anti-depressant* or antihistamine* or ((antiviral* or anti-viral*) adj2 (agent* or oral*)) or atenolol* or atorvastatin*).ti,ab,kf.
39. (bamlanivimab* or beta blocker* or casirivimab* or cilgavimab* or convalescent plasma* or corticosteroid* or dexamethasone* or enol-oxaloacetate* or enoxaparin* or etanercept* or Evusheld* or fludrocortisone* or hydroxychloroquine* or intravenous immunoglobulin* or immunomodulator* or immunomodulator* or imdevimab* or meglucocorticoid* or glucocorticosteroid* or indomethacin* or ivermectin*).ti,ab,kf.
40. (levocetirizine* or megestrol* or methylnicotinamide* or methylprednisolone* or monoclonal antibod* or montelukast* or N115 or N-115 or Nacetylcysteine* or sodium pyruvate* or naltrexone* or nicotinamide* or nintedanib* or nirmatrelvir* or Paxlovid* or perflubron* or pirfenidone* or prednisolone* propranolol* or remdesivir* or ritonavir* or rituximab*).ti,ab,kf.
41. (S1226 or S-1226 or selective serotonin reuptake inhibitor* or SSRI* or sildenafil* or sotrovimab* or steroid* or sulodexide* or tiazotic acid* or tixagevimab* or thiotriazolin* or vasodilator* or vasopressin* or vortioxetine* or vinpocetine*).ti,ab,kf.
42. (cellular therap* or cell-based therap* or stem cell* or actovegin* or amniotic epithelial cell* or hAEC? or Ampion* or Cerebrolysin* or COVI-MSC* or cSVF or Leronlimab* or MON002 or RSLV-132 or Ruconest*).ti,ab,kf.
43. (Ampligen* or AMP511 or AMP-511 or ((AT1011 or AT-1011) and Meters*) or celecoxib* or colchicine* or CoQ10 or famotidine* or fluvoxamine* or forlumab* or TZLS401 or TZLS-401 or ((IMC2 or IMC-2) and Vioros*) or larazotide* or AT1001 or metformin* or Fortamet* or

Glucophage* or palmitoylethanolamide* or rivaroxaban* or (sodium gluconate and (spray* or nasal* or intranasal*)) or valacyclovir* or TNX102-SL or TNX-102-SL).ti,ab,kf. [new terms added April 2023]

44. exp Dietary Supplements/ or exp Nutrition Therapy/ or Medical Marijuana/ or exp Cannabinoids/
45. (dietician? or nutritionist?).ti,ab,kf.
46. (sublingual or oral drops).ti,ab,kf.
47. (antioxidant* or anti-oxidant* or Bioarginina C or L-arginine or CBD or cannabis or cannabinoid* or endocannabinoid* or Myoquinon or coenzyme Q10 or Niagen or nicotinamide riboside or probiotic* or pro-biotic* or prebiotic* or pre-biotic* or lactobacill* or inulin* or bacteriotherap*).ti,ab,kf.
48. exp Surgical Procedures, Operative/ or Blood Component Removal/ or exp Compression Bandages/ or exp Electric Stimulation Therapy/ or exp Organ Transplantation/ or Neuromuscular Blocking Agents/ or exp Radiofrequency Therapy/
49. (device? or procedure? or technique?).ti,kf.
50. (surgery or surgeries or surgical* or operation).ti,ab,kf.
51. (apheresis or blood washing or blood component removal or plasmapheresis).ti,ab,kf.
52. ((compression or pressure) adj3 (bandage* or garment* or clothing* or socks or stocking? or hose)).ti,ab,kf.
53. ((lung? or organ?) adj2 transplantation).ti,ab,kf.
54. ((electrical or bioelectric or nerve or transcranial or trans-cranial) adj3 (stimulator or stimulation*)).ti,ab,kf.
55. ((monopolar or intervention*) adj3 (radiofrequenc* or radio frequenc*)).ti,ab,kf.
56. (neurophysiological facilitation or neuromodulation or Parasymp? or Dolphin* or tDCS or INDIBA).ti,ab,kf.
57. (nerve block* or neuromuscular block* or ganglion block).ti,ab,kf.
58. (hyperbaric oxygen therap* or HBOT or supplemental oxygen or hydrogen therap* or (hydrogen adj3 inhalation) or molecular hydrogen).ti,ab,kf.
59. (dry needling or intramuscular stimulation or PEMF or pulsed electromagnetic field?).ti,ab,kf. [new terms April 2023]
60. exp Phototherapy/ or exp Psychiatric Somatic Therapies/ or exp Psychotherapy/ or exp Therapy, Computer-Assisted/ or exp Virtual Reality/
61. (cognitive restructuring or ICBT or CBT or mind-body or meditation* or mentalPlus or hypnotherapy* or hypnosis or phototherapy or psychotherap* or progressive muscle relaxation or breathing retraining or pranayama* or olfactory training).ti,ab,kf.



62. ((cognitive or singing or breathing or breath or breathe or choral or choir or opera or ENO) adj2 (class or classes or instruction* or intervention* or training or program*)).ti,ab,kf.
63. (virtual reality or virtual environment? or virtual technolog* or ((computer* or digital or online or smartphone or virtual or web or webbased) adj3 (game? or gaming or app)) or gamification).ti,ab,kf.
64. [Medline complementary and alternative medicine]
65. exp Alternative Medicine/ or exp Biological Products/ or exp Complementary therapies/ or Osteopathic Medicine/
66. (complementary medicine? or alternative medicine? or traditional medicine?).ti,ab,kf.
67. (acupuncture or acupressure or auriculotherap* or acupoint? or chiropract* or osteopath* or reflexology*).ti,ab,kf.
68. (biofeedback or bio-feedback or sensory feedback).ti,ab,kf.
69. (Ayurved* or Agastya Haritaki or Ashwagandha or CIM-Meg19 or Pippali).ti,ab,kf.
70. (homoeopath* or naturopath*).ti,ab,kf.
71. (ozone or autohemotherapy*).ti,ab,kf.
72. (Qingjin Yiqi or zinc chloride*).ti,ab,kf. [new terms added April 2023]
73. OR/24-73

Medline results before limits: post–COVID-19 combined with treatment or management

74. (11 or 23) and 73
75. 3 or 74
76. 75 use medall

Embase post–COVID-19 treatment or management terms by themselves

77. long COVID/dm, dt, th [Disease Management, Drug Therapy, Therapy]
78. ((post covid* or post coronavirus* or long covid* or long coronavirus*) adj2 (treatment* or management)).ab.
79. 77 or 78

Embase main post–COVID-19 concept

80. Long covid/
81. (long COVID* or long coronavirus* or longCOVID* or longcoronavirus*).ti,ab,kf.
82. (sequela* adj5 (COVID* or coronavirus* or corona virus* or SARS-COV-2 or SARS-COV2 or SARSCOV-2 or SARSCOV2)).ti,ab,kf.

83. ((post or chronic or long term or longterm) adj3 (COVID* or coronavirus* or corona virus* or SARS-COV-2 or SARS-COV2 or SARSCOV-2 or SARSCOV2) adj4 (condition* or sequela* or syndrome* or subsyndrome* or clinical syndrome* or disorder* or symptom* or outcome* or clinical outcome* or function* or followup or follow-up or subtyp* or sub-typ* or phenotyp* or complication* or survivor*)).ti,ab,kf.
84. ((postCOVID* or postcoronavirus* or postcorona virus* or postSARS-COV-2 or postSARS-COV2 or postSARSCOV-2 or postSARSCOV2) adj4 (condition* or sequela* or syndrome* or disorder* or symptom* or outcome* or clinical outcome* or function* or followup or follow-up or subtyp* or sub-typ* or phenotyp* or complication* or survivor*)).ti,ab,kf.
85. ((post acute or postacute or late complication*) adj3 (COVID* or coronavirus* or corona virus* or SARS-COV-2 or SARS-COV2 or SARSCOV-2 or SARSCOV2)).ti,ab,kf.
86. PASC.ti,kf.
87. (post-COVID* adj fatigue).ti,ab,kf.
88. or/80-87

Embase COVID-19

89. exp Coronavirus disease 2019/
90. exp Severe acute respiratory syndrome coronavirus 2/
91. (COVID* or coronavirus* or corona virus* or 2019nCoV or 19nCoV or COVID19* or COVID or SARS-COV-2 or SARSCOV-2 or SARS-COV2 or SARSCOV2 or SARS coronavirus 2 or Severe Acute Respiratory Syndrome Coronavirus 2 or Severe Acute Respiratory Syndrome Corona Virus 2).ti,ab,kf,nm,ot.
92. or/89-92

Embase additional post-COVID-19 terms and subtypes, to combine with COVID-19

93. (((post acute or postacute or sub-acute or subacute or chronic or long or longterm or late) adj sequela*) or PASC).ti,ab,kf.
94. (long haul* or longhaul*).ti,ab,kf.
95. ((persist* or long* or residual or prolonged) adj8 ((olfactory or chemosensor*) adj (disorder* or dysfunction*))).ti,ab,kf.
96. (post* or chronic* or long or longterm or sequela*).ti,ab,kf.
97. (PFS or (pulmonary adj3 fibro*) or (lung adj3 fibro*) or fatigue syndrome? or myalgic encephalomyelitis or ME-CFS or ME?CFS or (postural adj3 tachycardia*) or POTS or MIS-C or MIS-A or PIMS or PIMSTS or PIMS-TS).ti,ab,kf.
98. ((multisystem* or multi-system*) adj3 (inflamm* or hyperinflamm*)).ti,ab,kf.

- 99. 96 and (97 or 98)
- 100. or/93-95,99
- 101. 92 and 100

Embase treatment or management concept

- 102. therapy/
- 103. (pr or su or th).fs. [Embase pharmaceuticals, surgery, therapy]
- 104. (treatment* or therap* or management or managing or drug? or medication? or pharmacolog* or pharmaceutical* or non-drug? or nonpharmacolog* or non-pharmacolog* or biologic or biologics or diet* or supplement* or vitamin* or treat or treated or treating or placebo* or off-label*).ti,kf.
- 105. (treatment* or therap* or management or managing or drug? or medication? or pharmacolog* or pharmaceutical* or non-drug? or nonpharmacolog* or non-pharmacolog* or biologic or biologics or diet* or supplement* or vitamin* or treat or treated or treating or placebo* or off-label*).ab. /freq=3
- 106. ((care or treatment or healthcare) adj2 (model* or path* or plan*)).ti,ab,kf.
- 107. ((interdisciplin* or inter-disciplin* or cross-disciplin* or multidiscipline* or multi-disciplin* or inter-disciplin*) adj3 (team* or clinic? or centre? or center? or model* or program*)).ti,ab,kf.
- 108. (recovery adj2 (team* or clinic? or centre? or center? or model* or program*)).ti,ab,kf.
- 109. (care adj2 (coordinat* or co-ordinat*)).ti,ab,kf.
- 110. (patient-centred care or patient-centered care or case manag*).ti,ab,kf.
- 111. exp *biological therapy/ or exp *drug therapy/ or exp *biological product/ or exp inhaler/ or exp nebulizer/
- 112. (infusion* or inhaler* or nasal spray* or nebulize*).ti,ab,kf.
- 113. vaccin*.ti,kf.
- 114. vaccin*.ab. /freq=3
- 115. (anticoagulants or (anticoagulant* adj2 (therap* or oral* or intravenous* or IV)) or apixaban* or clopidogrel* or heparin*).ti,ab,kf.
- 116. (aceclofenac* or antibiotic* or antidepressant* or anti-depressant* or antihistamine* or ((antiviral* or anti-viral*) adj2 (agent* or oral*)) or atenolol* or atorvastatin*).ti,ab,kf.
- 117. (bamlanivimab* or beta blocker* or casirivimab* or cilgavimab* or convalescent plasma* or corticosteroid* or dexamethasone* or enol-oxaloacetate* or enoxaparin* or etanercept* or Evusheld* or fludrocortisone* or hydroxychloroquine* or intravenous immunoglobulin* or immunomodulator* or immunomodulator* or imdevimab* or meglucocorticoid* or glucocorticosteroid* or indomethacin* or ivermectin*).ti,ab,kf.

118. (levocetirizine* or megestrol* or methylnicotinamide* or methylprednisolone* or monoclonal antibody* or montelukast* or N115 or N-115 or Nacetylcysteine* or sodium pyruvate* or naltrexone* or nicotinamide* or nintedanib* or nirmatrelvir* or Paxlovid* or perflubron* or pirfenidone* or prednisolone* propranolol* or remdesivir* or ritonavir* or rituximab*).ti,ab,kf.
119. (S1226 or S-1226 or selective serotonin reuptake inhibitor* or SSRI* or sildenafil* or sotrovimab* or steroid* or sulodexide* or tiazotic acid* or tixagevimab* or thiotriazolin* or vasodilator* or vasopressin* or vortioxetine* or vinpocetine*).ti,ab,kf.
120. (cellular therap* or cell-based therap* or stem cell* or actovegin* or amniotic epithelial cell* or hAEC? or Ampion* or Cerebrolysin* or COVI-MSC* or cSVF or Leronlimab* or MON002 or RSLV-132 or Ruconest*).ti,ab,kf.
121. (Ampligen* or AMP511 or AMP-511 or ((AT1011 or AT-1011) and Meters*) or celecoxib* or colchicine* or CoQ10 or famotidine* or fluvoxamine* or forlumab* or TZLS401 or TZLS-401 or ((IMC2 or IMC-2) and Vioros*) or larazotide* or AT1001 or metformin* or Fortamet* or Glucophage* or palmitoylethanolamide* or rivaroxaban* or (sodium gluconate and (spray* or nasal* or intranasal*)) or valacyclovir* or TNX102-SL or TNX-102-SL).ti,ab,kf. [new terms added April 2023]
122. exp dietary supplement/ or exp supplementation/ or exp cannabinoid/ or exp probiotic agent/
123. (dietician? or nutritionist?).ti,ab,kf.
124. (sublingual or oral drops).ti,ab,kf.
125. (antioxidant* or anti-oxidant* or Bioarginina C or L-arginine or CBD or cannabis or cannabinoid* or endocannabinoid* or Myoquinon or coenzyme Q10 or Niagen or nicotinamide riboside or probiotic* or pro-biotic* or prebiotic* or pre-biotic* or lactobacill* or inulin* or bacteriotherap*).ti,ab,kf.
126. medical procedures/ or exp device therapy/ or exp surgery/ or exp compression bandage/ or exp electrotherapy/ or exp neuromuscular blocking agent/ or exp radiofrequency therapy/ or exp phototherapy/ or exp extracorporeal therapy/
127. (device? or procedure? or technique?).ti,kf.
128. (surgery or surgeries or surgical* or operation).ti,ab,kf.
129. (apheresis or blood washing or blood component removal or plasmapheresis).ti,ab,kf.
130. ((compression or pressure) adj3 (bandage* or garment* or clothing* or socks or stocking? or hose)).ti,ab,kf.
131. ((lung? or organ?) adj2 transplantation).ti,ab,kf.
132. ((electrical or bioelectric or nerve or transcranial or trans-cranial) adj3 (stimulator or stimulation*)).ti,ab,kf.
133. ((monopolar or intervention*) adj3 (radiofrequenc* or radio frequenc*)).ti,ab,kf.

134. (neurophysiological facilitation or neuromodulation or Parasym? or Dolphin* or tDCS or INDIBA).ti,ab,kf.
135. (nerve block* or neuromuscular block* or ganglion block).ti,ab,kf.
136. (hyperbaric oxygen therap* or HBOT or supplemental oxygen or hydrogen therap* or (hydrogen adj3 inhalation) or molecular hydrogen).ti,ab,kf.
137. (dry needling or intramuscular stimulation or PEMF or pulsed electromagnetic field?).ti,ab,kf. [new terms added April 2023]
138. exp mental health care/ or exp psychiatric treatment/ or virtual reality/ or exp computer assisted therapy/ or exp experimental therapy/
139. (cognitive restructuring or ICBT or CBT or mind-body or meditation* or mentalPlus or hypnotherapy* or hypnosis or phototherapy or psychotherap* or progressive muscle relaxation or breathing retraining or pranayama* or olfactory training).ti,ab,kf.
140. ((cognitive or singing or breathing or breath or breathe or choral or choir or opera or ENO) adj2 (class or classes or instruction* or intervention* or training or program*)).ti,ab,kf.
141. (virtual reality or virtual environment? or virtual technolog* or ((computer* or digital or online or smartphone or virtual or web or webbased) adj3 (game? or gaming or app)) or gamification).ti,ab,kf.
142. exp alternative medicine/ or chiropractic/ or exp osteopathic medicine/ or exp acupuncture/ or homeopathy/
143. (complementary medicine? or alternative medicine? or traditional medicine?).ti,ab,kf.
144. (acupuncture or acupressure or auriculotherap* or acupoint? or chiropract* or osteopath* or reflexology*).ti,ab,kf.
145. (biofeedback or bio-feedback or sensory feedback).ti,ab,kf.
146. (Ayurved* or Agastya Haritaki or Ashwagandha or CIM-Meg19 or Pippali).ti,ab,kf.
147. (homoeopath* or naturopath*).ti,ab,kf.
148. (ozone or autohemotherapy*).ti,ab,kf.
149. (Qingjin Yiqi or zinc chloride*).ti,ab,kf. [new terms added April 2023]
150. or/102-149

Embase results before limits: post-COVID-19 combined with treatment or management

151. (88 or 101) and 150
152. 79 or 151
153. 152 use oemez



Medline and Embase results combined before limits

154. 76 or 153

Human Filter

155. exp animals/

156. exp animal experimentation/ or exp animal experiment/

157. exp models animal/

158. nonhuman/

159. exp vertebrate/ or exp vertebrates/

160. or/155-159

161. exp humans/

162. exp human experimentation/ or exp human experiment/

163. or/161-162

164. 160 not 163

165. 154 not 164

Limits for publication types, language, and date*

166. (comment or newspaper article or editorial or letter or note).pt.

167. 165 not 166

168. 167 not (conference abstract or conference review or preprint).pt.

169. limit 168 to (english or french)

170. 169 use medall

171. 169 use oemez

172. 170 and (2023042* or 2023043* or 202305* or 202306* or 202307*).dt,ez,da. [Medline date limits]

173. limit 171 to dc=20230420-20230717 [Embase date limits]

174. 172 or 173

* Date limits listed are those that were used for the final update on July 17, 2023.

Grey Literature Search

Dates of grey literature search for current report: July 5-19, 2022.

Alerts: The grey literature search was updated every 6 months until completion of the living review in July 2023.



Keywords: post–COVID-19, long COVID, post acute sequelae of COVID, chronic COVID condition, and synonyms; along with treatments (drug, device, or other non-drug) or care models. Publications solely on rehabilitation or exercise were excluded.

Limits: Publication date of 2019 to 2023.

Relevant websites from the following sections of the CADTH grey literature checklist [Grey Matters: A Practical Tool for Searching Health-Related Grey Literature](#) were searched:

- Health Technology Assessment Agencies
- Clinical Practice Guidelines
- Clinical Trials Registries
- Databases (free)
- Internet Search
- Plus, [CADTH COVID-19 Grey Literature Resources](#)

References

1. McGowan J, Sampson M, Salzwedel DM, Cogo E, Foerster V, Lefebvre C. PRESS Peer Review of Electronic Search Strategies: 2015 guideline statement. *J Clin Epidemiol*. 2016;75:40-46.
2. Chao Y-S, McGill SC, Gates M. Clinical classification and interventions for post-COVID-19 condition: a scoping review. *Can J Health Technol*. 2022 May;2(5). <https://www.cadth.ca/post-covid-19-condition-scoping-review>. Accessed 2023 Oct 30.
3. Chao Y-S, McGill SC, Gates M, Vu T, Hamson A. Post–COVID-19 condition treatment and management rapid scoping review. *Can J Health Technol*. 2022;2(12). https://www.cadth.ca/sites/default/files/pdf/htis/2022/RE0040-001%20Post%20Covid%20Mgmt%20Scoping%20Rev_Final.pdf. Accessed 2023 Oct 30.
4. CADTH COVID-19 search strings. Ottawa (ON): CADTH; 2019: <https://covid.cadth.ca/literature-searching-tools/cadth-covid-19-search-strings/>. Accessed 2022 Dec 9.
5. Grey matters: a tool for searching health-related grey literature. Ottawa (ON): CADTH; 2022: <https://greymatters.cadth.ca/>. Accessed 2023 Oct 30.
6. CADTH COVID-19 grey literature resources. Ottawa (ON): CADTH; 2019: <https://covid.cadth.ca/literature-searching-tools/cadth-covid-19-grey-literature-resources/>. Accessed 2023 Oct 30.