

## Boletim BiblioCovid

Boletim BiblioCovid v.3 n.7, Julho 2022 | Síndrome da Covid longa

Boletim destinado a apresentação de estratégias e artigos científicos sobre temas relacionados à Covid-19. Gostaria de um boletim com sua temática? Sugira novos temas aqui: [BiblioCovid\\_sugestao\\_de\\_tema](#)

## Síndrome da Covid longa



### Vocabulário controlado

MeSH – Medical Subject Headings (NLM/NIH)  
DeCS

### Bases utilizadas

BVS (LILACS – Coleciona SUS - LILACS – CONASS - PAHO-IRIS – MEDLINE - BRISA/RedTESA)

### Termos Utilizados (com base nos Descritores em Ciências da Saúde - DeCs):



### Descritores e/ou palavras-chave

Covid longa  
Síndrome pós-COVID-19  
Long Covid  
Long COVID-19 Syndrome  
persistent COVID-19 symptoms  
post-COVID-19 syndrome

### Filtros utilizados

Texto Completo

### Estratégias de busca

("covid longa" OR "long covid" OR "síndrome pós-COVID-19" OR "post-COVID-19 syndrome" OR "persistent COVID-19 symptoms" OR "Long COVID-19 syndrome")

Seleção dos dez artigos mais relevantes, segundo critérios da base de dados Portal regional BVS, incluindo o filtro "texto completo"

## 1. Neuromuscular Complications of SARS-CoV-2 and Other Viral Infections

Doi: <https://dx.doi.org/10.3389/fneur.2022.914411>

### Resumo

In this article we review complications to the peripheral nervous system that occur as a consequence of viral infections, with a special focus on complications of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). We discuss neuromuscular complications in three broad categories; the direct consequences of viral infection, autoimmune neuromuscular disorders provoked by viral infections, and chronic neurodegenerative conditions which have been associated with viral infections. We also include discussion of neuromuscular disorders that are treated by immunomodulatory therapies, and how this affects patient susceptibility in the current context of the coronavirus disease 2019 (COVID-19) pandemic. COVID-19 is associated with direct consequences to the peripheral nervous system via presumed direct viral injury (dysgeusia/anosmia, myalgias/rhabdomyolysis, and potentially mononeuritis multiplex) and autoimmunity (Guillain Barré syndrome and variants). It has important implications for people receiving immunomodulatory therapies who may be at greater risk of severe outcomes from COVID-19. Thus far, chronic post-COVID syndromes (a.k.a long COVID) also include possible involvement of the neuromuscular system. Whether we may observe neuromuscular degenerative conditions in the longer term will be an important question to monitor in future studies.

### Referência

JACOB, Sarah *et al.* Neuromuscular Complications of SARS-CoV-2 and Other Viral Infections. **Frontiers in Neurology**, [s. l.], v. 13, 24 jun. 2022. Disponível em: <https://dx.doi.org/10.3389/fneur.2022.914411>. Acesso em: 13 jul. 2022.

## 2. "I feel like my body is broken": exploring the experiences of people living with long COVID

Doi: <https://doi.org/10.1007/s11136-022-03176-1>

### Resumo

Long COVID, an illness affecting a subset of individuals after COVID-19, is distressing, poorly understood, and reduces quality of life. The objective of this sub-study was to better understand and explore individuals' experiences with long COVID and commonly reported symptoms, using qualitative data collected from open-ended survey responses. Methods: Data were collected from adults living with long COVID who participated in a larger observational online survey. Participants had the option of answering seven open-ended items. Data from the open-ended items were analyzed following guidelines for reflective thematic analysis. Results: From 213 participants who were included in the online survey, 169 participants who primarily self-identified as women (88.2%), aged 40–49 (33.1%), who had been experiencing long COVID symptoms for  $\geq 6$  months (74%) provided open-ended responses. Four overlapping and interconnected themes were identified: (1) Long COVID symptoms are numerous and wearing, (2) The effects of long COVID are pervasive, (3) Physical activity is difficult and, in some cases, not possible, and (4) Asking for help when few are listening, and little is working. Conclusion: Findings reaffirm prior research, highlighting the complex nature of long COVID. Further, results show the ways individuals affected by the illness are negatively impacted and have had to alter their daily activities. Participants recounted the challenges faced when advocating for themselves, adapting to new limitations, and navigating healthcare systems. The varied relapsing–remitting symptoms, unknown prognosis, and deep sense of loss over one's prior identity suggest interventions are needed to support this population.

### Referência

WURZ, Amanda *et al.* "I feel like my body is broken": exploring the experiences of people living with long COVID. **Quality of Life Research**, [s. l.], 11 jul. 2022. Disponível em: <https://doi.org/10.1007/s11136-022-03176-1>. Acesso em: 13 jul. 2022.

## 3. Expandir nosso entendimento da síndrome pós-COVID-19. Relatório de um webinar da OMS. 9 de fevereiro de 2021

Doi: <https://doi.org/10.37774/9789275723999>

### Resumo

Durante a primeira onda da pandemia da, os pesquisadores já começaram a montar estudos de coorte longitudinais para avaliar as sequelas da COVID-19. Em agosto de 2020, a Organização Mundial da Saúde (OMS) reuniu-se com pacientes do grupo LongCovidSOS e defendeu a necessidade de reconhecimento, pesquisa e reabilitação. Em setembro de 2020, a OMS havia estabelecido o código CID-10 para a síndrome pós-COVID-19. Em janeiro de 2021, a OMS publicou sua orientação inicial sobre o manejo clínico de pacientes após a doença aguda. Com o objetivo de avançar nesse campo reunindo partes interessadas de todo o mundo, a OMS organizou uma série de webinars com os seguintes objetivos específicos: prioridades de ação em reconhecimento, pesquisa e reabilitação; apresentação de conhecimentos científicos atualizados sobre a síndrome pós-COVID-19; enriquecimento da discussão por meio de grupos de trabalho com painéis de especialistas.

### Referência

EXPANDIR nosso entendimento da síndrome pós-COVID-19. **Relatório de um webinar da OMS**. 9 de fevereiro de 2021. Brasília, D.F.: Organização Pan-Americana da Saúde; 2021. Licença: CC BY-NC-SA 3.0 IGO. Disponível em: <https://iris.paho.org/handle/10665.2/54313#:~:text=Citation-,Expandir%20nosso%20entendimento%20da%20s%C3%ADndrome%20p%C3%B3s%2DCOVID%2D19.,%2DAmericana%20da%20Sa%C3%BAde%3B%202021>. Acesso em: 30 jun. 2022.

## 4. Disorders of gut-brain interaction in post-acute COVID-19 syndrome

Doi: <http://dx.doi.org/10.1136/pmj-2022-141749>

### Resumo

The novel coronavirus SARS-CoV-2 is responsible for the devastating pandemic which has caused more than 5 million deaths across the world until today. Apart from causing acute respiratory illness and multiorgan dysfunction, there can be long-term multiorgan sequelae after recovery, which is termed 'long COVID-19' or 'post-acute COVID-19 syndrome'. Little is known about long-term gastrointestinal (GI) consequences, occurrence of post-infection functional gastrointestinal disorders and impact the virus may have on overall intestinal health. In this review, we put forth the various mechanisms which may lead to this entity and possible ways to diagnose and manage this disorder. Hence, making physicians aware of this spectrum of disease is of utmost importance in the present pandemic and this review will help clinicians understand and suspect the occurrence of functional GI disease post recovery from COVID-19 and manage it accordingly, avoiding unnecessary misconceptions and delay in treatment.

### Referência

GOLLA, Rithvik *et al.* Disorders of gut-brain interaction in post-acute COVID-19 syndrome. **Postgraduate Medical Journal**, [s. l.], 01 jul. 2022. Disponível em: <http://dx.doi.org/10.1136/pmj-2022-141749>. Acesso em: 12 jul. 2022.

## 5. Long COVID-19 syndrome: a 14-months longitudinal study during the two first epidemic peaks in Southeast Brazil

Doi: <https://doi.org/10.1093/trstmh/trac030>

### Resumo

A growing number of long COVID cases after infection have been reported. By definition, long COVID is the condition whereby affected individuals do not recover for several weeks or months following the onset of symptoms suggestive of COVID-19, the profile and timeline of which remains uncertain. Methods: In this work, in-home, outpatient and hospitalized COVID-19 positive patients were monitored for up to 14 mo to establish the prevalence of long COVID symptoms and their correlation with age, pre-existing comorbidities and course of acute infection. The longitudinal study included 646 positive patients who were monitored once a month. Results: From the whole population, 50.2% presented with long COVID syndrome. Twenty-three different symptoms were reported. Most frequent were fatigue (35.6%), persistent cough (34.0%), dyspnea (26.5%), loss of smell/taste (20.1%) and frequent headaches (17.3%). Mental disorders (20.7%), change in blood pressure (7.4%) and thrombosis (6.2%) were also reported. Most patients presented with 2-3 symptoms at the same time. Long COVID started after mild, moderate and severe infection in 60, 13 and 27% of cases, respectively, and it was not restricted to specific age groups. Conclusions: Older patients tended to have more severe symptoms, leading to a longer post-COVID-19 period. The presence of seven comorbidities was correlated with the severity of infection, and severity itself was the main factor that determined the duration of symptoms in long COVID cases.

### Referência

MIRANDA, Daniel A. P. de *et al.* Long COVID-19 syndrome: a 14-months longitudinal study during the two first epidemic peaks in Southeast Brazil. **Transactions of the Royal Society of Tropical Medicine and Hygiene**, [s. l.], Maio 2022. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/mdl-35514142>. Acesso em: 30 jun. 2022.

## 6. Neuropsychological manifestations of long COVID in hospitalized and non-hospitalized Brazilian Patients

Doi: <https://doi.org/10.3233/nre-228020>

### Resumo

There has been a significant increase in number of patients seeking neuropsychological rehabilitation months after the acute phase of COVID-19 infection. Identify the cognitive and psychiatric disorders in patients with long COVID or Post-Acute Sequelae of COVID (PASC) and explore the association between disease severity during the acute phase and persistent neuropsychological manifestations. Methods: 614 adults were assessed an average of eight months post-infection. Participants were, on average, 47.6 y.o., who sought rehabilitation for neuropsychological problems. Patients were evaluated using the Barrow Neurological Institute Screen for Higher Cerebral Functions (BNIS), Phonemic Verbal Fluency and Clock Drawing tests (NEUPSILIN) for executive functions, and the Hospital Anxiety and Depression Scale (HADS). Results: The BNIS score was significantly below reference values in all subscales, especially affect and memory. Verbal Fluency and Clock Drawing subtest results were also lower. Patients with PASC tested high for anxiety/depression, but there was no statistically significant relationship between HADS and BNIS scores. Neuropsychological evaluations showed no differences in cognitive or psychiatric profiles between hospitalized and non-hospitalized patients. Conclusions: Neuropsychological results suggest executive function problems and high incidence of anxiety/depression, irrespective of acute-phase severity, underscoring a need for neurorehabilitation programs while providing data for public policy initiatives.

### Referência

BRAGA, L W *et al.* Neuropsychological manifestations of long COVID in hospitalized and non-hospitalized Brazilian Patients. **NeuroRehabilitation**, [s. l.], v. 50, n. 4, p. 391-400, 2022. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/mdl-35599507>. Acesso em: 30 jun. 2022.

## 7. Long COVID Through a Public Health Lens: An Umbrella Review

Doi: <https://doi.org/10.3389/phrs.2022.1604501>

### Resumo

Objective: To synthesize existing evidence on prevalence as well as clinical and socio-economic aspects of Long COVID. Methods: An umbrella review of reviews and a targeted evidence synthesis of their primary studies, including searches in four electronic databases, reference lists of included reviews, as well as related article lists of relevant publications. Results: Synthesis included 23 reviews and 102 primary studies. Prevalence estimates ranged from 7.5% to 41% in non-hospitalized adults, 2.3%-53% in mixed adult samples, 37.6% in hospitalized adults, and 2%-3.5% in primarily non-hospitalized children. Preliminary evidence suggests that female sex, age, comorbidities, the severity of acute disease, and obesity are associated with Long COVID. Almost 50% of primary studies reported some degree of Long COVID-related social and family-life impairment, long absence periods off work, adjusted workloads, and loss of employment. Conclusions: Long COVID will likely have a substantial public health impact. Current evidence is still heterogeneous and incomplete. To fully understand Long COVID, well-designed prospective studies with representative samples will be essential.

### Referência

NITTAS, Vasileios *et al.* Long COVID Through a Public Health Lens: An Umbrella Review. **Public Health Reviews**, [s. l.], v. 43, 2022. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/mdl-35359614>. Acesso em: 30 jun. 2022.

## 8. The Impact of COVID-19 Infection on Cognitive Function and the Implication for Rehabilitation: A Systematic Review and Meta-Analysis

Doi: <https://doi.org/10.3390/ijerph19137748>

### Resumo

There is mounting evidence that patients with severe COVID-19 disease may have symptoms that continue beyond the acute phase, extending into the early chronic phase. This prolonged COVID-19 pathology is often referred to as 'Long COVID'. Simultaneously, case investigations have shown that COVID-19 individuals might have a variety of neurological problems. The accurate and accessible assessment of cognitive function in patients post-COVID-19 infection is thus of increasingly high importance for both public and individual health. Little is known about the influence of COVID-19 on the general cognitive levels but more importantly, at sub-functions level. Therefore, we first aim to summarize the current level of evidence supporting the negative impact of COVID-19 infection on cognitive functions. Twenty-seven studies were included in the systematic review representing a total of 94,103 participants (90,317 COVID-19 patients and 3786 healthy controls). We then performed a meta-analysis summarizing the results of five studies (959 participants, 513 patients) to quantify the impact of COVID-19 on cognitive functions. The overall effect, expressed in standardized mean differences, is  $-0.41$  [95%CI  $-0.55; -0.27$ ]. To prevent disability, we finally discuss the different approaches available in rehabilitation to help these patients and avoid long-term complications.

### Referência

Houben, Sarah; Bonnechère, Bruno. The Impact of COVID-19 Infection on Cognitive Function and the Implication for Rehabilitation: A Systematic Review and Meta-Analysis. **International journal of environmental research and public health**, [s. l.], v. 19, n. 13, 24 jun. 2022. Disponível em: <https://doi.org/10.3390/ijerph19137748>. Acesso em: 13 jul. 2022.

## 9. Cuidados crônicos em pacientes com síndrome pos-COVID-19 tras el egreso de la unidad de cuidados intensivos

Doi: <https://doi.org/10.26633/RPSP.2022.43>

### Resumo

**Objetivo.** Describir las características clínicas de pacientes con síndrome pos-COVID-19 recién egresados de unidades cuidado intensivo (UCI) incluidos en un programa de cuidados crónicos en Colombia. **Métodos.** Estudio descriptivo de serie de casos procedentes de una cohorte de pacientes con síndrome pos-COVID-19 que ingresaron al programa de cuidados crónicos Remeo® entre julio de 2020 y mayo de 2021. Se describen las características clínicas, las complicaciones y el tratamiento de estos pacientes. **Resultados.** Se identificaron 122 casos de síndrome pos-COVID-19 dados de alta de la UCI para continuar en el Programa. La media de la edad fue de 66,9 años (IC 64-68); 62,29% fueron hombres, 88,9% (109) tenían traqueostomía, 72,8% (90) gastrostomía, y 99% requerían oxígeno suplementario. Se llevaron a cabo 9 518 intervenciones en los primeros 4 meses, inclusive terapia física ( $\bar{x}$  20,7), terapia ocupacional ( $\bar{x}$  10,9), terapia respiratoria ( $\bar{x}$  41,4) y psicología ( $\bar{x}$  4,8). **Conclusiones.** El Programa de cuidados crónicos representó una alternativa para pacientes con síndrome pos-COVID-19 recién egresados de las UCI, dirigido a minimizar la ocupación de estas y facilitar el paso del paciente desde la UCI al domicilio.

### Referência

ROJAS CÁRDENAS, Catherine *et al.* Cuidados crónicos en pacientes con síndrome pos-COVID-19 tras el egreso de la unidad de cuidados intensivos. **Revista Panamericana de Salud Pública**, [s. l.], v. 46, abr. 2022. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/phr-55943>. Acesso em: 30 jun. 2022.

## 10. Protocol of the Luebeck longitudinal investigation of SARS-CoV-2 infection (ELISA) study - a prospective population-based cohort study

Doi: <https://doi.org/10.1186/s12889-022-13666-z>

### Resumo

Considering the insufficiently controlled spread of new SARS-CoV-2 variants, partially low vaccination rates, and increased risk of a post-COVID syndrome, well-functioning, targeted intervention measures at local and national levels are urgently needed to contain the SARS-CoV-2 pandemic. Surveillance concepts (cross-sectional, cohorts, clusters) need to be carefully selected to monitor and assess incidence and prevalence at the population level. A critical methodological gap for identifying specific risks/dynamics for SARS-Cov-2 transmission and post-COVID-19-syndrome includes repetitive testing for past or present infection of a defined cohort with simultaneous assessment of symptoms, behavior, risk, and protective factors, as well as quality of life. Methods: The ELISA-Study is a longitudinal, prospective surveillance study with a cohort approach launched in Luebeck in April 2020. The first part comprised regular PCR testing, antibody measurements, and a recurrent App-based questionnaire for a population-based cohort of 3000 inhabitants of Luebeck. The follow-up study protocol includes self-testing for antibodies and PCR testing for a subset of the participants, focusing on studying immunity after vaccination and/or infection and post-COVID-19 symptoms. Discussion: The ELISA cohort and our follow-up study protocol will enable us to study the effects of a sharp increase of SARS-CoV-2 infections on seroprevalence of Anti-SARS-CoV-2 antibodies, post-COVID-19-symptoms, and possible medical, occupational, and behavioral risk factors. We will be able to monitor the pandemic continuously and discover potential sequelae of an infection long-term. Further examinations can be readily set up on an ad-hoc basis in the future. Our study protocol can be adapted to other regions and settings and is transferable to other infectious diseases.

### Referência

PYE, Alison *et al.* A public health approach to estimating the need for long COVID services. **Journal of Public Health**, 14 out. 2021. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/mdl-34651183>. Acesso em: 30 jun. 2022.



Clique [aqui](#) e confira os demais artigos

O que você achou deste Boletim?  
Sua opinião é muito importante para nós!  
Acesse: [boletimbibliocovid\\_suaopinia](#)

## Expediente

### Coordenação do Projeto

Viviane Veiga (ICICT- Coordenadora da Rede de Bibliotecas Fiocruz)  
Patrícia Mendes (ICICT/CRBF)  
Adriano da Silva (ENSP/BibCLAVES)  
Gizele Ribeiro (ICICT/BibSP)

### Referencistas responsáveis

Rachel Alves Pereira Azevedo (COC/ BHCS)  
Marise Terra Lachini (COC/BHCS)

### Apoio

Letícia Ramalho – Estagiária (ICICT/CRBF)  
Isabella Pereira - Bolsista (ICICT/CRBF)

### Projeto gráfico

Luciana Rocha Mariz Clua – Multimeios | ICICT | FIOCRUZ

### Diagramação

Letícia Ramalho – Estagiária – ICICT/CRBF  
Luciana Rocha Mariz Clua – Multimeios | ICICT | FIOCRUZ  
Isabella Pereira - Bolsista (ICICT/CRBF)

**Ilustração BiblioCovid:** Luciana Rocha Mariz Clua - Multimeios | ICICT | FIOCRUZ

**Imagens:** Pixabay

## Rede de Referencistas da Rede de Bibliotecas Fiocruz



Viviane Veiga  
ICICT/CRBF



Patricia Mendes  
ICICT/CRBF



Adriano da Silva  
ENSP/BibCLAVES



Martha Silveira  
Fiocruz Bahia/BibIGM



Gizele Ribeiro  
ICICT/BibSP



Adagilson Silva  
Fiocruz PE/BibIAM



Adrienne Oliveira  
COC/BHCS



Arlete Santos  
ENSP/BibCESTEH



Giovania Santos  
de Jesus  
ICICT/CRBF



Glauce de Oliveira  
Pereira  
ICICT/BibSP



Marise Terra  
Lachini - COC/BHCS



Marluce Maciel  
Antelo - EPSJV/  
BibEB



Mayara Alves  
Fiocruz Petrópolis/  
BibPFI



Vera Queiróz  
ENSP/BibGESTEC



Nuzia Santos  
Fiocruz Minas  
BibMINAS



Rachel Alves  
Pereira Azevedo  
COC/ BHCS



Renata Azeredo  
EPSJV/BibEB



Janaína Leal  
INCQS/BIBINCQS



Isabella Pereira  
ICICT/CRBF