

In brief

Post-acute sequelae of SARS-CoV-2

1 April 2021

Background

- Post-infection syndromes, often with fatigue as a major symptom, are well described. They are most commonly associated with viral infections and were a feature of SARS.
- For some COVID-19 survivors, symptoms occur beyond the acute phase of illness, either with typical signs and symptoms that extend for far longer than usual, or with post-acute disease sequelae that manifest after resolution of the initial illness.
- The terms [long COVID](#) and [long-haulers](#) are frequently used for this group and while evocative, they are imprecise terms and are not recognised as diagnostic or scientific terminology.(1, 2)
- Imprecision in the terms related to persistent illness has resulted in broad [prevalence estimates](#) ranging from 13% to 87% of all acute infections.(3)
- The term [post-acute sequelae or PASC](#) of SARS-CoV-2 infection was introduced in January 2021 by the US National Institute of Health and is appropriate for use in scientific publications.(4)

Key articles from the literature

- A [National Institute for Health and Care Excellence \(NICE\) rapid guideline \(Dec 2020\)](#) noted COVID-19 disease spans:
 - acute COVID-19: signs and symptoms of COVID-19 for up to four weeks
 - ongoing symptomatic COVID-19: signs and symptoms of COVID-19 from 4 to 12 weeks.
 - post-COVID-19 syndrome: signs and symptoms that develop during or after an infection consistent with COVID-19, continue for more than 12 weeks and are not explained by an alternative diagnosis.(5)
- A wide-ranging [review in Nature \(Mar 2021\)](#) describes timelines, management, epidemiology, pathophysiology and specific system sequelae.(6)
- A range of symptoms are attributed to persistent COVID-19. Many articles do not distinguish between chronic (ongoing) symptoms and long-term sequelae. [JAMA \(Oct 2020\)](#) and the [Centers for Disease Prevention and Control \(Nov 2020\)](#) report the most commonly reported symptoms are fatigue, dyspnoea, joint pain, chest pain and cough. In addition, specific dysfunction has been reported in cardiovascular, respiratory, renal, dermatologic, neurological systems and mental health.(7, 8)
- In terms of pathogenesis, [Centers for Disease Prevention and Control \(Nov 2020\)](#) notes that sequelae may reflect organ damage from the acute infection phase, manifestations of a persistent hyperinflammatory state, ongoing viral activity associated with a host viral reservoir, or an inadequate antibody response.(8)
- The [Lancet \(Feb 2021\)](#) and [Nature \(Oct 2020\)](#) highlight calls for guidelines and nomenclature to reflect lived experience of people experiencing post-acute sequelae. [Data collection](#) efforts are underway.(9-11)

A Critical Intelligence Unit evidence check on the [medium- and long-term health sequelae of COVID-19](#) was done in August 2020.⁽¹²⁾ For this brief, a PubMed search for systematic reviews and targeted website and Google searches were completed.

References

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