



## The Relation Between COVID-19 and Depression

by Dr. John O'Brien, Gen Re, London

No one would argue that the current pandemic caused by the SARS-CoV-2 virus has had a devastating impact on the world. The pandemic has affected most facets of life. The most obvious statistic is the COVID-19 mortality: Current estimates put global deaths at close to five million. It is likely that this is a significant underestimate.

### Long-term health effects of COVID-19 disease

Those who have survived COVID, may have recovered quickly and easily; indeed many infections have been asymptomatic. However, a large number have had prolonged hospitalisations and many people following recovery from the initial infection have had ongoing symptoms, lasting from a few weeks to many months. This long tail of the disease has been variously called Long COVID, Long Haul COVID or Postacute Sequelae of Acute Respiratory Syndrome Coronavirus 2 infection. The most common manifestations of this are fatigue, headache and breathlessness. The group with subjective symptoms and no clear underlying pathology – such as headaches, fatigue, anxiety or depression – are typically more challenging to manage, and the cause can be multifactorial.

A number of studies have looked at the incidence of Long COVID, including a recently published state-of-the-art review of post-acute sequelae of severe disease.<sup>1</sup> This indicates that 33% to 98% of survivors have symptoms or complications for at least a month. The most common of these are fatigue (28.3%-98%), headache (91.2%), dyspnoea (13.5%-88%), cough (10%-13%), chest pain (5%-42.7%), anxiety or depression (14.6%-23%) and deficits in smell or taste (13.1%-67%). The importance of understanding the long-term effects of COVID-19 is vital in planning future care and management strategies. The National Institutes of Health (NIH) in the U. S. has recently allocated \$470 million to build a national study population including diverse research volunteers and, to support large-scale studies on the long-term effects of COVID-19. This is known as the NIH Researching COVID to Enhance Recovery (RECOVER) study.<sup>2</sup>

People with Long COVID need to be distinguished from those who have suffered organ damage as a result of the acute infection, possibly complicated by sepsis, ventilation and prolonged intensive care stays. These would include respiratory, neurological, sensory, and other physiological sequelae with a clear known cause.

### Content

Long-term health effects of COVID-19 disease	1
State, societal, and individual responses to COVID-19	2
Incidence of mental illnesses during the pandemic	2
Increasing prevalence of major depressive disorders	3
Implications for claims management	4

The assessment and management of claims arising from this group would be comparable with non-COVID claims for similar conditions. Claims assessors should ensure that an appropriately qualified specialist has verified the diagnosis and treatment, consider whether any workplace adjustments, such as remote work, could accommodate the claimant's symptoms, and monitor recovery according to the expected prognosis.

### State, societal, and individual responses to COVID-19

Before addressing the topic of whether COVID-19 infection causes depression and anxiety, it is important to look at factors contributing to the development of depression and anxiety resulting from the pandemic.

In attempts to limit the rapid spread of the infection, most countries have imposed lockdowns of varying severity that have resulted in huge economic losses, with many individuals losing their businesses and their jobs. Many have lost loved ones and suffered economic uncertainty and fear of contracting the disease. In addition, the lockdown has produced an abnormal society where people have been unable to partake in their usual socialising and exercise activities, and in particular have been prevented from seeing family and close friends, even those who have been dying from the disease. The isolation imposed to reduce the spread of the infection, has potential serious mental health

implications as human beings tend to be "social animals". Fortunately, current technology allows easy communication and has also allowed many to continue working from home, in many cases as efficiently as if they were in the office.

The epidemic has contributed to reactions that have included panic buying and the proliferation of conspiracy theories, as well as stress brought about by activities such as nonadherence to social distance requirements and mask wearing. The lack of a specific effective treatment has resulted in desperate attempts to access potential treatments that may not have any proven efficacy, such as chloroquine and ivermectin. It has also created opportunity for quack cures. Reaction to government interventions, including lockdowns and more recently vaccine mandates, has led to sporadic looting and rioting.

The fact that many scientific predictions have been proven incorrect has also contributed to scepticism regarding the information from scientists and government sources. Initially, experts said that wearing masks did not help. Then they said that everyone should wear masks. They said that the virus is spread by contact from surfaces and then said that this was not important, and the virus was spread by inhaling tiny droplets. Predictions regarding herd immunity were proved wrong.

These changing messages can be expected as the science progresses, but it did not contribute to confidence that the government and science were in control of the pandemic.

The astoundingly rapid development of the vaccines has brought hope for the control of the pandemic. But even here mixed messages confuse and contribute to anxiety. While the anti-VAX movement may reflect a small component of most societies, it is quite vocal and unfortunately has been supported by some prominent medical specialists, resulting in concerns regarding short- and long-term side effects of the vaccine. In pandemic history, this is nothing new. In 19th century Britain the anti-VAX movement was the largest single movement resulting in the persistence of diseases that should have been eliminated much earlier. Today the distribution of information both accurate and false happens very rapidly via social media, which makes this pandemic unique.

Of course, not all the responses have been negative. Societies have demonstrated extraordinary resilience and support for stretched medical services. Groups and individuals have supported communities and neighbours, particularly those who are frail or needed support.

### Incidence of mental illnesses during the pandemic

With this background, we can look at the information regarding the pandemic and depression. Up to 65% of people who recovered from COVID-



19 report psychiatric complications including post traumatic stress disorder, anxiety, depression, insomnia and obsessive-compulsive symptoms.<sup>3</sup> Also prolonged grief disorder occurs in about 10% of those who have lost a loved one and consequently lose their joy for life.<sup>4</sup> Patients with severe COVID-19 are also more likely to experience these complications, with one study reporting new mental health symptoms in 56% of patients who were previously hospitalised.<sup>5</sup> Those who have suffered severe disease, younger patients, women and those with a previous history of mental health problems are most likely to develop psychiatric symptoms.<sup>6</sup>

The interplay between the disease and depression and suicide is complex. It is well-documented that conditions, such as diabetes, are associated with more severe disease and adverse outcomes. It has been suggested that mood disorders, which are also associated with impaired immune function, may predispose the individual to COVID-19. A recent systemic review and meta-analysis of 21 studies concluded that individuals with pre-existing mood disorders are at higher risk of COVID-19 hospitalisation and death and should be categorised as an at-risk group on the basis of a pre-existing condition.<sup>7</sup> A study among U. S. military veterans did not show any increase in suicide during the study period in the pandemic, but veterans who were infected with COVID-19 were more than twice as likely to report suicidal ideation.<sup>8</sup>

## Increasing prevalence of major depressive disorders

A recent study of the effects of the pandemic on anxiety and major depression has estimated a significant increase in the prevalence of both major depressive disorder, with an estimated additional 53.2 million cases worldwide, and anxiety disorders with an additional 76.2 million cases. These findings are particularly concerning because depression and anxiety were already leading causes of disability worldwide. By using the global burden of disease study model, the study gives estimates of additional disability-adjusted life-years (DALYS). Major depressive disorder caused 49.4 million DALYS, and anxiety disorders caused 44.5 million DALYS in 2020.<sup>9</sup>

Whether the increase in depression and anxiety can be solely ascribed to the effects of the pandemic or whether the disease itself can induce these conditions remains uncertain. Soon after the start of the pandemic, a UK-wide surveillance study trying to identify neurological and neuropsychiatric complications identified patients with altered mental status, which fulfilled the clinical case definition for psychiatric diagnoses:<sup>10</sup>

- 21 of the 23 cases were new diagnoses.
- 10 had new onset psychosis.
- 6 had a neurocognitive syndrome.
- 4 had an affective disorder.

More recently, a study looked at six-month neurological and psychiatric outcomes in COVID survivors. This was a large study with the primary cohort of 236,379 patients with a COVID-19 diagnosis, a matched control cohort of 236,038 patients diagnosed with any respiratory tract infection and 105,579 patients diagnosed with influenza. The study showed that about one-third of COVID survivors had a neurological or psychiatric disorder, substantially more than the comparative figures for influenza. Most mental health diagnoses were more common in those who had COVID-19 than those who had influenza, with hazard ratio for any anxiety disorder being 1.45 and any mood disorder 1.47.<sup>11</sup> This needs to be interpreted with caution as the majority were not first time diagnoses and most would agree that COVID-19 infection would tend to be a more stressful diagnosis than influenza.

It is therefore clear that the large increase in depression and anxiety is not only related to COVID-19 infection, but also to the myriad effects of the pandemic. What is less clear is whether infection with the virus itself causes depression.



There are some indications that this may be the case, but it is likely that the majority are responding to the effects of the illness and possibly even other physical manifestations of Long COVID such as persistent fatigue. Crucially, little information regarding severity of disease and responses to treatment is available. If indeed the virus can induce depression, what is the prognosis and are there any specific treatments which might prove effective?

### Implications for claims management

Those recovering from severe disease may have more prolonged recovery periods both from a physical and a mental health perspective. Interpretation of this is complicated by the fact that those with severe disease tend to be older and have more comorbidities.<sup>12</sup> The physical symptoms of Long COVID do seem to resolve in the majority. Likewise, with appropriate treatment, depression and anxiety should also be controlled.

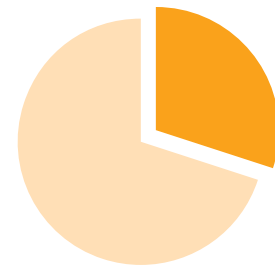
The major impact from an insurance perspective will be on prolonged work absence, but in some markets those with delayed recovery are older and may not fall into the Income Protection age group. Income Protection products, particularly those with a short waiting or deferred period, may see an increase in short duration claims but to what extent remains to be seen. Potentially, there is also a risk of claims for total and permanent disability in those with severe depression which may be complicated further by other manifestations of Long COVID. As with all claims, each claim should be evaluated on its own unique set of circumstances and merits. Application of the biopsychosocial model is important to ensure when one's functional status changes it may well respond to active management and rehabilitation (see also the article *A Holistic Approach to Managing Depression Claims* by Mary Enslin in this issue).

As a starting point, we recommend gathering detailed information about the claimant's clinical and occupational situation. This should include a comprehensive medical history, applicable questionnaires and screening tools, results of any tests or investigations, and an appropriate examination that involves assessing physical, cognitive, psychological and psychiatric symptoms, as well as functional abilities. In addition, a detailed understanding of the material and substantial occupational duties performed just prior to the claimed date of loss, and any information on how the claimant's role, company and industry have been impacted by the pandemic will be useful since diagnosis in and of itself does not equate to disability.<sup>13</sup>

Maintaining regular contact with the insured and encouraging them to set realistic goals for management of their symptoms and return to normal activities, including work is paramount. When managing fatigue and similar complaints, a multidisciplinary approach with graded exposure to activities has been shown to be most successful. For mental health disorders, cognitive behavioural therapy is effective in addressing the underlying causes in the majority of cases. It may be beneficial to explore workplace accommodations, such as working from home, a phased return, and many more. Many tools are available to aid claimants in recording and tracking their goals, symptoms and treatment. Gen Re's relationship with THRIVE is but one example of the apps available.

## Depression & anxiety

are the leading causes of disability worldwide



**One-third**  
of COVID-19  
survivors suffered from  
psychiatric disorders

### About the author



*Dr. John O'Brien is a specialist physician and pulmonologist. In 2016 he joined Gen Re full-time as the CMO for the Global Underwriting and R&D department. He is now the chief medical officer for the CUSAC segment covering Canada, UK, Ireland, Southern Africa, Australia and New Zealand, and continues to support the Research & Development department. He can be contacted at Tel. +44 20 7426 1819 or john.obrien@genre.com.*

## Endnotes

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All data as per beginning of November 2021

### General Reinsurance AG

Theodor-Heuss-Ring 11  
50668 Cologne  
Tel. +49 221 9738 0  
Fax +49 221 9738 494

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