

CARE OF PEOPLE AFTER COVID-19



NATIONAL
CLINICAL
EVIDENCE
TASKFORCE

COVID-19

VERSION 8.1

PUBLISHED
22 MAY 2023

FORMS OF GUIDANCE

Evidence-Based Recommendation (EBR)
Consensus Recommendation (CBR)
Practice Point (PP)

Types
of
EBRs

RECOMMENDATION FOR USE

RECOMMENDATION AGAINST USE

CONDITIONAL RECOMMENDATION
FOR USE

CONDITIONAL RECOMMENDATION
AGAINST USE

General

- This flowchart applies to **adults, adolescents and children** with signs and symptoms that continue, or develop, after acute COVID-19.
- These signs and symptoms are commonly referred to as 'long COVID'.
- A range of symptoms have been reported in both adults and children, with variation in the duration of symptoms and clinical sequelae. Growing evidence shows that these symptoms are driven by underlying immunological and biological changes.
- Symptoms may be experienced by people who had either mild, moderate or severe COVID-19.
- Some symptoms subside gradually with self-directed care alone, while other symptoms may require care from a health professional, and new symptoms may arise over time.
- Preventing COVID infection (and reinfection) is the most effective way of minimising the risk of developing post-COVID condition.

CURRENT DEFINITIONS

Acute COVID-19

- Signs and symptoms of COVID-19 for up to 4 weeks.

Post-COVID-19 condition/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. It usually presents with clusters of symptoms, often overlapping, which can fluctuate and change over time and can affect any system in the body. Post-COVID-19 condition may be considered before 12 weeks while the possibility of an alternative underlying disease is also being assessed.

CBR [Taskforce/NICE/WHO]

Goals of Care

COMMUNICATION

Due to the broad range of symptoms and signs following acute COVID-19, a biopsychosocial approach to care, within the local context, is important. Take the time to listen to the patient, validate their experience and offer information about the symptoms that they are experiencing, including management options. **PP** [Taskforce]

COORDINATED CARE

The primary health care team is well placed to coordinate person-centred care and should remain a central point in the care team along with the person's healthcare decision-maker or family/carers. Best practice would include a multidisciplinary team. This could be accessed through general practice, community health, rehabilitation programs or post-COVID-19 clinics, where these are available. **PP** [Taskforce]

Use case conferences to facilitate coordinated care. **PP** [Taskforce]

ACCESS TO CARE

This flowchart should be applied after considering features of the individual, their preferences and the context in terms of rurality/remoteness, public health responses and proximity to rehabilitation or higher-level care. For those needing active rehabilitation, involving a larger centre or specialist care could be considered. Use of virtual care, including telehealth, should be considered. **PP** [Taskforce]

Assessment

INITIAL INVESTIGATIONS

- Confirm that the person had COVID-19 (by checking that they had a positive rapid antigen test or PCR) or is likely to have had COVID-19 (by checking that they have had symptoms consistent with a SARS-CoV-2 infection and/or known contact with a positive case or high risk setting). Document details of the acute illness.
- Check the current symptoms and ask the person about their concerns, functioning and wishes in terms of their needs.
- Assess whether the current symptoms are likely to be related to acute COVID-19.
- Assess whether the symptoms may be related to, or are exacerbated by, comorbid conditions.

PP [Taskforce/NSW HealthPathways]

There is no definitive test for post-COVID-19. To avoid adding burden to the person, limit investigations to those that are necessary for determining care. **PP** [Taskforce]

SYMPTOM-BASED TESTING

Decisions about blood tests should be guided by the person's symptoms. **If clinically indicated**, offer blood tests, which may include a full blood count, kidney and liver function tests, C-reactive protein, ferritin, B-type natriuretic peptide (BNP), HbA1c and thyroid function tests. **EBR** [NICE]

If appropriate, offer an exercise tolerance test suited to the person's ability (for example, the 1-minute sit-to-stand test). During the exercise test, record level of breathlessness, heart rate and oxygen saturation. Follow an appropriate protocol to carry out the test safely. **EBR** [NICE]

For people with postural symptoms, for example palpitations or dizziness on standing, carry out lying and standing blood pressure and heart rate recordings (3-minute active stand test for orthostatic hypotension, or 10 minutes if you suspect postural tachycardia syndrome, or other forms of orthostatic intolerance). **CBR** [NICE]

Offer a chest X-ray by 12 weeks after acute COVID-19 only if the person has continuing respiratory symptoms **and it is clinically indicated**. Chest X-ray appearances alone should not determine the need for referral for further care. **EBR** [NICE]

COMMON SYMPTOMS IN ADULTS

Investigate symptoms as per usual care. **CBR** [Taskforce]

The most commonly reported symptoms described by **adults** after COVID-19 include:

Respiratory symptoms

- Shortness of breath
- Cough

Generalised symptoms

- Fatigue
- Fever
- Pain

Cardiovascular symptoms

- Chest tightness
- Chest pain
- Palpitations

Neurological symptoms

- Cognitive impairment ('brain fog', loss of concentration or memory issues)
- Headache
- Sleep disturbance
- Peripheral neuropathy (pins and needles and numbness)
- Dizziness
- Delirium (in older populations)
- Mobility impairment
- Visual disturbance

Gastrointestinal symptoms

- Abdominal pain
- Nausea and vomiting
- Diarrhoea
- Weight loss and reduced appetite

Musculoskeletal symptoms

- Joint pain
- Muscle pain

Ear, nose and throat symptoms

- Tinnitus
- Earache
- Sore throat
- Dizziness
- Loss of taste and/or smell
- Nasal congestion

Dermatological symptoms

- Skin rashes
- Hair loss

Psychological/psychiatric symptoms

- Depression
- Anxiety
- Post-traumatic stress disorder

CBR [Taskforce/NICE]

The list of symptoms will be updated as new evidence emerges.

COMMON SYMPTOMS IN CHILDREN

The most commonly reported symptoms in **children** after COVID-19 include:

Generalised symptoms

- Fatigue
- Exercise intolerance

Neurological symptoms

- Sleep disorders (e.g. insomnia, hypersomnia, and poor sleep quality)
- Headache
- Cognitive symptoms (e.g. less concentration, learning difficulties, confusion, memory loss)

Respiratory symptoms**Ear, nose and throat symptoms**

- Sputum production or nasal congestion
- Altered smell

Gastrointestinal symptoms

- Loss of appetite

Psychological symptoms

- Mood symptoms

CBR [Taskforce/Lopez-Leon 2022]

The list of symptoms will be updated as new evidence emerges.

OTHER MANIFESTATIONS

Long COVID symptoms also manifest in ongoing complications from acute COVID-19, new symptoms following recovery of COVID-19, along with decompensation of pre-existing medical conditions.

Complications from acute COVID-19 include:

- Extra-pulmonary medical complications of COVID (e.g. DVT), pulmonary embolism, pulmonary fibrosis or scarring
- Myocarditis (cardiac muscle inflammation)

Conditions that can manifest following acute COVID-19 include:

- Post-intensive care syndrome (PICS) – symptoms may include anxiety, depression, cognitive impairment, memory loss, muscle weakness, dysphagia and reduced quality of life
- Multisystem inflammatory syndrome – symptoms corresponding with the syndrome have been reported in adults and children
- Cardiovascular dysautonomia such as postural orthostatic tachycardia syndrome (POTS)
- New and/or co-incident medical conditions
- De-stabilisation or exacerbation of pre-existing medical conditions

PP [Taskforce]

THINGS TO WATCH FOR

Be alert to any developing or worsening symptoms that could mean that referral or further investigation is needed. **PP** [Taskforce]

In some people, symptoms may indicate ongoing, worsening or new COVID-19 infection.

If goals of care include active disease management, refer to the appropriate Clinical Flowchart for adults

- [Management of adults with mild COVID-19](#)
- [Management of adults with moderate to severe COVID-19](#)
- [Management of adults with severe to critical COVID-19](#)

For management of active disease in children and adolescents, refer to

- [Care at home for children and adolescents with mild COVID-19](#)
- [Care in hospital for children and adolescents with mild to moderate COVID-19](#)
- [Care in hospital for children and adolescents with severe to critical COVID-19](#)

ESCALATION OF CARE

RED FLAG symptoms and signs**Any of the following:**

- severe, new onset or worsening breathlessness or hypoxia
- syncope
- unexplained chest pain, palpitations or arrhythmias
- severe psychiatric symptoms including risk of self-harm or suicide
- delirium
- focal neurological signs or symptoms.

PP [Taskforce/NSW HealthPathways]



Arrange for an emergency assessment in hospital

RECOMMENDATIONS FOR CARE

In patients with continuing symptoms after COVID-19

- use established symptom management approaches (e.g. breathing retraining to improve symptoms of dyspnoea)
- monitor and optimise management of underlying medical conditions
- monitor and manage lifestyle factors (e.g. smoking, nutrition, sleep, alcohol use and physical activity).

CBR [Taskforce]

In people with signs and symptoms of a new or exacerbated pre-existing mental health condition post-COVID-19, provide psychosocial, psychological and psychiatric support if indicated. **CBR** [Taskforce]

In patients with persistent symptoms or functional impairment following COVID-19, begin rehabilitation as soon as possible, as appropriate to the individual's circumstance, setting and tolerance. **CBR** [Taskforce]

Where appropriate, treatment may involve physical and occupational therapy, speech and language therapy, vocational therapy, as well as neurological rehabilitation and dietary interventions. **PP** [Taskforce]

Use local and regional protocols and HealthPathways to determine optimal referral pathways. **PP** [Taskforce]

In patients with post-exertional fatigue, use a conservative physical rehabilitation plan involving consultation with physiotherapy or exercise physiology for cautious initiation and pacing of activity or movement. **CBR** [Taskforce]

For most patients, gradual return to exercise as tolerated may be beneficial. Clinicians should assess whether exercise exacerbates symptoms, and adjust rehabilitation plans as necessary. **PP** [Taskforce]

Additional caution and specialist review should be sought before commencing exercise programs in patients who are known to have myocarditis. **PP** [Taskforce]

Schedule regular review as necessary and discuss patient function and symptomatology. **CBR** [Taskforce]

Where possible, use standardised tools to monitor changes in function and symptomatology. **PP** [Taskforce]

Use education and skills training on self-management strategies for symptoms. **CBR** [Taskforce]

The World Health Organization provides [patient resources on self-management](#).

FOLLOW UP CARE

Review medications that were stopped or started during the acute phase of the illness. **PP** [Taskforce]

When providing care in the community, refer the person to the RACGP patient resource on [Managing post-COVID-19 symptoms](#). **PP** [Taskforce]

Give people information on COVID-19 vaccines and encourage them to follow current official guidance for vaccination. Explain that it is not known if vaccines have any effect on ongoing symptomatic COVID-19 or post-COVID-19 condition. **CBR** [Taskforce/NICE]

EMERGING THERAPIES

In patients with continuing symptoms after COVID-19, do not use unproven therapies outside of guidelines or randomised trials with appropriate ethical approval. **CBR** [Taskforce]

For people with continuing symptoms after COVID-19, do not use naltrexone outside of randomised trials with appropriate ethical approval. **CBR** [Taskforce]

For people with continuing symptoms after COVID-19, do not use hyperbaric oxygen therapy outside of randomised trials with appropriate ethical approval. **CBR** [Taskforce]

Sources

Lopez-Leon S, Wegman-Ostrosky T, Perelman C, et al. More than 50 Longterm effects of COVID-19: a systematic review and meta-analysis. medRxiv. 2021.01.27.21250617. <https://doi.org/10.1101/2021.01.27.21250617>

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