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## GUIDANCE

# Meeting the psychological needs of people recovering from severe coronavirus (Covid-19)

This guidance considers the likely psychological needs of people who have been hospitalised with severe coronavirus (Covid-19), and the most effective ways to support their recovery.

Since Covid-19 is caused by a novel virus (SARS-Cov-2), there is limited data on the psychological needs (both emotional and cognitive aspects) of those affected. However, this guidance is based on emerging knowledge and clinical experience during the current pandemic, as well as published studies on psychological aspects of related illnesses. These include similar infectious outbreaks (Severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome-related coronavirus (MERS)) and critical illness; the fields of cardiac and pulmonary rehabilitation are also relevant.

Many people who contract Covid-19 experience only mild, or even no symptoms, but a proportion develop much more serious consequences and require hospitalisation, primarily for breathing problems.

Many of those hospitalised require only simple oxygen therapy on a general ward, but some require admission to critical care units for non-invasive ventilation (NIV) or invasive mechanical ventilation (IMV). Patients who require IMV have a tube inserted via the mouth and trachea into their lungs, which is connected to a ventilator, and are often deeply sedated and paralysed with neuromuscular blocking drugs, often for a prolonged period.

The mortality rate of those critically ill ventilated patients is still not certain, but currently appears to be high. Long term consequences of Covid-19 may include fatigue, persistent changes in heart and lung function, depression, anxiety and post-traumatic stress disorder. Some patients may experience significant cognitive impairment, which in the extreme could include dementia-like presentations. This guidance focuses on patients who survive critical illness but continue to experience significant physical and psychological symptoms. It should be noted, however, that patients with milder illness following Covid-19 may also experience psychological difficulties.

The psychological, functional and physical aspects of patients recovering from coronavirus infection should be considered together (biopsychosocial model). Looking at any of them in isolation risks poorer outcomes and inappropriate treatment. It is well known that psychological factors have an effect on morbidity and mortality outcomes of many health conditions.

# GUIDANCE

## PSYCHOLOGICAL ASPECTS OF SEVERE COVID-19

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Common psychological aspects of recovery include:

- Anxiety
- Low mood
- Fear of further illness and hyper-vigilance to bodily symptoms
- Nightmares or flashbacks
- Poor sleep
- Impaired memory functioning
- Effects on attention, mental processing speed and executive function
- Fear of stigma or of contaminating others.

There are also specific aspects of the experience of hospitalisation that may be associated with psychological difficulties in critically ill patients with Covid-19. Research from the SARS and MERS epidemics suggests that psychological distress was more severe among groups who contracted these infections, compared to other critically ill patients.

However, not all psychological aspects of recovery from Covid-19 are negative, and not all patients will experience difficulties. In fact, many patients who have had severe illness experience positive psychological changes, for instance a sense of gratitude or the desire to help others.

In-hospital risk factors for subsequent psychological difficulties include:

- In-hospital stress, fear and low mood
- Confusion and delirium, experiences such as hallucinations and delusions with difficulty distinguishing between real and unreal phenomena
- Prolonged ventilation
- Prolonged use and high doses of sedatives including benzodiazepines, and other psychoactive drugs commonly used in critical care
- Inability to communicate due to being intubated, and not understanding why
- Perceived lack of control and autonomy
- Loss of memory and early intrusive memories in hospital.

During the current Covid-19 pandemic, issues that could exacerbate this further may include:

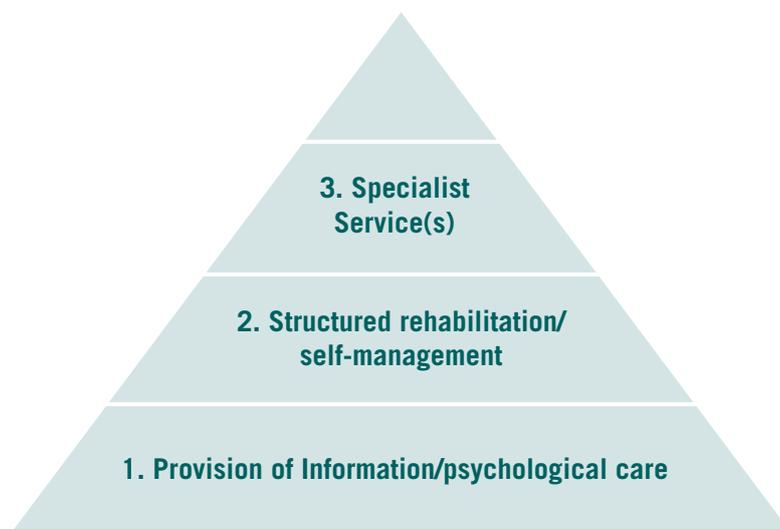
- Physical barriers to seeing and communicating with staff due to Personal Protective Equipment
- Social isolation – loved ones prohibited from visiting
- Common ICU environmental stressors such as noise, alarms, lack of daylight and disruption of patients' circadian rhythms exacerbated by conditions in ICUs during the Covid-19 crisis
- Witnessing other patients on ventilators and/or deaths
- Concerns about effect of lack of staffing and equipment on care.

Background risk factors include:

- Pre-existing health anxiety
- Pre-existing psychological distress or other mental health problems
- Recent bereavement/illness of family or friends
- Previous traumatic experience
- Prior experience of critical illness and treatment in a critical care unit
- Prior experience of serious infectious diseases
- Pre-existing cognitive impairment/dementia
- Socio-economic status/unemployment/education.

## PSYCHOLOGICAL COMPONENTS OF CARE TO AID RECOVERY

A stepped, needs-based, approach to providing psychological care is recommended. This consists of provision of information and psychological care by ward staff in hospital, and early follow-up after hospital discharge, to provide a structured rehabilitation package and referral to specialist psychological services where appropriate.



**Figure 1: Stepped psychological response**

## 1. PROVISION OF INFORMATION/PSYCHOLOGICAL CARE

### 1a. Before discharge

All patients with severe Covid-19 should receive psychological care from relevant members of the healthcare team throughout their admission to relieve fear and to help them understand symptoms they are experiencing (including hallucinations, delusions and delirium), treatment, and the critical care environment (guidance for staff is available at [www.ics.ac.uk](http://www.ics.ac.uk)).

Before hospital discharge, patients should receive verbal information from a multi-disciplinary discharge team about their experience in the hospital, as well as physical and psychological symptoms that may be experienced later, explanation of causes of these symptoms, and MDT recommendations to enhance rehabilitation and recovery. In these discussions, patients should be encouraged to ask questions about any aspects of their symptoms and treatment that they are concerned or worried about, or cannot clearly recall, before discharge.

The same information should also be provided in written form (in appropriate language or alternative accessible form), that patients can refer to and share with family members once they have been discharged home.

### 1b. Early follow-up appointment

All patients recovering from severe Covid-19 should be proactively followed up (in person or by phone/video call) between one to two months after discharge either by their general practitioner (GP), or by a hospital-based critical care follow-up clinic, in order to review their psychological, functional and physical needs. Some, but not all, critical care teams already provide this type of Multi-Disciplinary Team (MDT) follow-up service and may be well placed to adapt this for Covid-19 patients.

It is usually helpful to invite relatives to take part in these follow-up sessions. Patients and relatives should be given the chance to speak and ask questions about any aspects of their experience in hospital, including unusual memories or gaps in their memory, with healthcare professionals with a good understanding of the experience of severe Covid-19. However, they should not be pressed to discuss anything they do not wish to. All aspects of recovery should be reviewed, including a brief assessment of psychological symptoms and psychological aspects of their experience of physical symptoms. Use of brief measures suggested in list below may be helpful.

It is recommended that this assessment includes brief screening for the following elements (the use of brief standardised measures can be helpful, examples are given below).

- Daily routines including sleep/wake routine
- Evidence of returning to normal activities
- Impact on family or other social relationships
- Anxiety issues (e.g. GAD-7)
- Low mood (e.g. PHQ-9)
- Post-traumatic stress symptoms (e.g. Trauma Screening Questionnaire, TSQ)
- Cognitive difficulties (e.g. MOCA).

The personal meaning of any troubling physical symptoms for the patient should be checked out using questions such as ‘what do you worry might be causing your chest pain?’; ‘what do you worry might happen next when you experience breathlessness?’; ‘what do you do, or stop doing, when you experience fatigue?’ and ‘how do you feel when you experience images of the ICU?’

Responses to these questions may allow more accurate information about symptoms to be given to the patient. This can be crucial in preventing chronic problems developing. Recommendations about gradually increasing activity and avoiding a cycle of overactivity/underactivity should also be given.

We know that relatives (partners/spouses/significant others) of those recovering from severe Covid-19 may also experience psychological difficulties, and also that social support and family coping are strong predictors of patient recovery. Therefore, in addition to being screened for their own psychological distress, relatives’ beliefs about the patient’s continuing symptoms should also be checked.

## 2. STRUCTURED REHABILITATION/GUIDED SELF-MANAGEMENT

All patients with significant psychological, cognitive, functional or physical difficulties following hospitalisation for severe Covid-19, should be provided access to a structured, multidisciplinary rehabilitation package. This should be provided in an integrated way by physiotherapists, occupational therapists, practitioner psychologists, nurse specialists, doctors and other multidisciplinary team (MDT) members such as speech and language therapists and dieticians where relevant. As mentioned above, some critical care MDT rehabilitation teams already provide this service, at least partially, in some hospitals. In other cases, community rehabilitation specialists provide the service, coordinated by the GP.

Key psychosocial aspects of the rehabilitation package would include:

- Provision of information
- Psychological education to normalise symptoms and explain causes
- Support for emotional distress
- Cognitive-behavioural approaches to recovery
- Interventions to increase confidence in, and overcome fear of, resuming normal activities
- Advice on compensating for cognitive problems
- Peer support and integration with patient and family-led organisations such as ICUSteps
- Involvement of relatives.

These psychological aspects could be delivered remotely via the internet (including contact with other patients) but should be integrated within the overall MDT support package (exact arrangements will be dependent on the current isolation restrictions).

## 3. SPECIALIST PSYCHOLOGICAL SERVICES

Those with clinically significant difficulties with mood, anxiety, post-traumatic stress or other psychological difficulties, should be referred to local psychological therapy services or specialist psychological services in physical health, critical care or trauma, where available.

Those with significant cognitive difficulties should be referred to specialist neuro-rehabilitation and/or neuropsychology services.

## RECOMMENDED RESOURCES

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We recommend that a brief manual, describing the range of patient experiences of treatment for critical illness in general, and the effects of severe Covid-19 specifically, as well as recommended interventions, should be provided to all healthcare professionals giving follow-up care to this patient group.

### RESOURCES

[Intensive Care Society](#)

[ICU Steps resources](#)

[NICE Guideline Rehabilitation after critical illness in adults](#)

[NICE Quality Standard Rehabilitation after critical illness in adults.](#)

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