



World Federation for NeuroRehabilitation

## **CHAPTER 2**

### **HOW IS NEUROREHABILITATION POSSIBLE IN THE CORONA PANDEMIC? SUPPOSEDLY COVID-FREE PATIENTS AND THOSE WITH UNKNOWN INFECTION STATUS**

Some hints to enable neurorehabilitation even during the pandemic.

Due to the pandemic, health care services are affected and require radical changes both in the organisation and in the operating methods with the aim of maintaining the safety of patients and hospital staff.

It is important to note that also during the pandemic we see the responsibility to take care of many other health problems beyond Sars-Cov2 virus infections. This necessarily also includes the need for rapid entry into neurorehabilitation, especially for patients with significant neurological impairments after conditions such as stroke or TBI.

Of course this is only possible when careful measures are implemented to protect co-patients, staff and the community from the spread of infection originating from not sufficiently filtered out patients admitted to in-patient or out-patient rehabilitation settings.

#### **General strategy for “COVID-free” rehabilitation settings:**

##### **A. General hygiene rules**

The general key protection measures have to be posted within all the hospital departments. These include:

It is of paramount importance in these settings to obey general hygiene rules.

Keep staff and patients at least 1.5 metre distance apart

Ascertain regular use of hand hygiene (regular hand washing, intensive use of antiseptics)

Use masks for staff and patients as much as possible

Reduce direct person to person interactions as much as possible

Suspension of carers and relatives visits to hospitalised patients. Exceptional cases for a limited time must be authorised by clinicians.

Reorganisation of the work schedule for medical and non-medical staff; where necessary flexible working hours may be required for some staff.

Regular monitoring of medical vital parameters and, in particular, body temperature (<37.5 °C) and oxygen saturation to detect possible symptomatic patients as soon as possible.

## **B. Filtering patients before admission to rehabilitation units.**

The greatest difficulty is related to the need to find the right balance between the provision of services useful for patients and minimizing the risk of spreading COVID 19 among in-patients.

As explained in Chapter 1, this may mean designating specific clearing units and settings for rehabilitation of such individuals, guided at first by the principle of controlling the reduction of infection spread.

This pertains to patients who need rehabilitation treatment because of neurological disability who are COVID-free or with unknown COVID related infectious status.

These patients may come from acute hospitals e.g. stroke units or COVID+ units. In both cases, criteria for the admittance to less protected settings such as “ordinary” neurorehabilitation units have to be handled very carefully to avoid infection spread to “healthy “ co-patients and staff. Multiple negative Corona tests are necessary. In how far antibody tests may help to determine the infectiological status of the patient is not yet entirely clear and so far cannot be used to select patients.

Patients with unknown Sars CoV 2 status may be admitted to inpatient rehabilitation units from acute care hospitals and also from the community only with sufficient and thorough filtering. For this group, it is necessary to install “clearing wards” with transient, very strict isolation and staff PPE protection rules before the COVID-free status is definitely clarified (see also chapter 2). On these clearing wards, nursing and therapy should only be done with maximum precautions such as avoiding patient to patient contact, avoiding close one to one therapist patient interaction, etc. These necessary precautions are identical to the measures outlined in Chapter 1 for COVID patients.

Only after thorough precautions have been taken, newly admitted patients can be transferred into a more “liberal” rehabilitation unit with less precautions and maintaining general hygiene rules.

## **C. Special hints for treatment and unit organisation for non-COVID patients or patients with unknown infection status**

1. Therapies should be planned as much as possible using a “hands-free” or coaching approach, minimising direct one to one patient-therapist contact. In case this is not possible, staff must be protected by sufficient protection with PPE (FFP2 masks, gloves and gowns). Therapies should be performed primarily in the patients’ room when possible. In the case of gym activities, distance rules of at least two metres between the patients and therapists must be ascertained.

2. All meeting activities should be replaced by secure virtual care that already exists in some countries and is well developed. Media such as Zoom, Skype, Facetime and others may be suitable alternatives.
3. Patient clinical updating with family must be made by phone or email only.
4. The rehabilitation programmes must identify the most relevant goals with the reduction of the rehabilitation team's activities.
5. Suspension of all rehabilitation activities that require internal flow (movement between floors or to reach gyms).
6. In addition, self-therapy of the patient with templates provided by video information in the patient's room or by written material can be a good alternative to allow high frequency. This does not only apply to motor interventions but also to cognitive and neurolinguistic treatments in which the therapy should be done with proper distance and protection.
7. It is always recommended that the number of exposed operators is minimised.

These precautions always include the correct use of PPE and adequate awareness and training on the modalities related to their use, dressing, undressing and elimination, bearing in mind that in light of current knowledge, the main transmission methods of SARS-CoV-2 are through droplets and by contact, with the exception of specific manoeuvres and procedures at risk of generating droplets (i.e. swallowing rehabilitation).

Therefore, education of the procedures and participation in courses available online should be made mandatory, where training initiatives have not already been carried out.

Healthcare professionals and, where possible, psychological professionals, must make a contribution to reducing anxiety and depression, especially in patients who develop delirium, anger, fear, dysthymia, insomnia, panic attacks or feelings of abandonment during isolation or who are at risk of non-collaboration or non-adherence to treatment.

Considering that in post-ARDS patients from causes other than COVID-19, cognitive as well as psychological deficits have been found after 6 months - 1 year, it may be useful to perform an accurate cognitive evaluation with specific possible intervention where necessary and possible.

**Day Services and Day Hospital:** These activities must be suspended in many situations, except for those that cannot be postponed. Here, as mentioned above, very careful infectious status control with repeated testing is mandatory. Preferably, patients should be followed by TeleMedicine and TeleRehabilitation (see also Chapter 3).

### **WFNR Task Force on SARS-CoV2/-COVID-19 Pandemic**

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