

# COVID-19 epidemic

## Respiratory physiotherapy

Version 1 - 17 March 2020

Recommendations on respiratory physiotherapy sessions for patients with a confirmed or suspected COVID-19 infection. Respiratory physiotherapy is available by medical prescription.

### KEEPING MEDICAL CARE STAFF PROTECTED

Physiotherapists providing different types of treatment in a unit receiving COVID-19 patients may change their clothing and wear single-use scrubs. The scrubs must then be removed and disposed of before leaving the department.

#### ON ARRIVAL

- Before entering the ward, put on protective equipment:
  - Disinfect your hands with hand sanitiser
  - Long-sleeve single-use waterproof gown or long-sleeve single-use gown + plastic apron
  - FFP2 mask: ensure it is properly adjusted to your face (perform a fit check). Do not touch your mask during the session.
  - Anti-splash glasses
  - Cap, e.g. bouffant
- Once in the room:
  - Apply hand sanitiser
  - Put on single-use gloves before starting the session

#### ON LEAVING

- In the room, remove and dispose of the gloves and gown. Apply hand sanitiser.
- Outside the room:
  - Remove the cap (from the back, without making contact with the face)
  - Remove the glasses and disinfect them (according to internal procedure)
  - Remove and dispose of the mask.
  - Apply hand sanitiser

All waste and PPE must be disposed of according to the procedure for infectious waste.

### UNDER ALL CIRCUMSTANCES

Take the usual precautions, including:

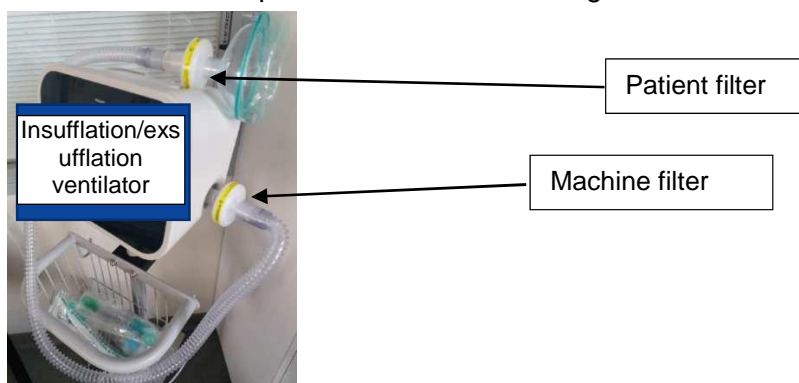
- Wearing gloves if coming into contact with biological fluids or used materials. Do not touch the patient's environment with used gloves.
- Disinfect the hands with hand sanitiser before and after any contact with the patient and after removing the gloves.
- Avoid touching your face while treating the patient.
- At the end of the session, clean all surfaces that could have been contaminated by patient secretions using a disinfectant detergent that meets virucide requirements (such as Surfa'safe Premium®).

## Avoid aerosolisation and treatment-related spatter.

- Airway clearance manoeuvres (to increase expiratory flow) should be performed by verbal instruction only and, if necessary, manual compressions.
- Techniques requiring the use of instruments (intermittent positive pressure breathing (IPPB) ventilators or mechanical insufflation-exsufflation devices) **should be avoided as much as possible.**

### IF AN INSUFFLATION-EXSUFFLATION DEVICE IS REQUIRED (WITH MEDICAL APPROVAL)

- Do not use insufflation/exsufflation devices that deliver intentional leak ventilation. If you only have an insufflation/exsufflation device delivering intentional leak ventilation, refer to procedure GAVO2.
- Setting up the circuit: place an antibacterial filter where the tube attaches to the device and another before the patient attachment. Change the filters once every 24 hours (or more often if



visibly dirty).

- Precautions for the use of attachments:
  - Mask: try, as far as possible, to keep the mask airtight against the face.
  - Intubation: check the balloon cuff is airtight.
  - Tracheotomy: where possible, perform sessions with the cuff inflated. If the tube has no cuff, place a surgical mask on the patient's face.
- Procedure for use:
  - If possible, ask the patient to carry out the session him or herself, maintaining a distance of 1 metre during the session.
  - Put the connection (mask or mouthpiece) in place before turning on the ventilator.
  - Switch off the device before removing the connection.
- At the end of the session:
  - Leave the circuit in the patient's room (it is the patient's personal circuit).
  - Disinfect the device: wipe down all surfaces with a wipe containing a disinfectant detergent, meeting virucide requirements (such as Surfa'safe Premium®) and leave to dry.
  - Record the end time of the session: leave the device idle for four hours (the same recommendation for respirators) before using for another patient.

### IF THE PATIENT IS ON CONTINUOUS SPONTANEOUS VENTILATION

- Ensure the patient is wearing a surgical mask during the session.
- Aerosols:
  - Treatments for inhalation should be limited as much as possible. Assess with a doctor the possibility of administering adrenergic  $\beta_2$  receptor agonists via a different route (as a spray or powder).
  - If there is no alternative, maintain a distance of 1 metre from the patient throughout nebulisation.
  - In tracheostomised patients, do not point the circuit towards the patient when disconnecting.
  - After administering the aerosol, remove the aerosol mask and replace a surgical mask on the patient.

- For high-flow oxygen therapy:
  - Ensure the nasal cannula is properly adjusted, to prevent propulsion.
  - Place a surgical mask on the patient, with the nasal cannula underneath the mask.

**IF THE PATIENT IS ON NON-INVASIVE VENTILATION (NIV)**

If it is necessary to interrupt NIV during the respiratory physiotherapy session:

- Stop mechanical ventilation (place it on standby)
- Disconnect the circuit and remove the NIV mask
- Place a surgical mask on the patient to resume NIV:
  - Place the NIV mask on the patient’s face, which is still disconnected from the circuit
  - Adjust the mask position and tighten the straps symmetrically
  - Connect the patient to the ventilation circuit
  - Begin mechanical ventilation

**IF THE PATIENT IS ON INVASIVE VENTILATION**

Intubated or tracheostomised patient:

Use a closed circuit for inhalation.

**ASPIRATION :**

- Tourner la molette du système clos
- Introduire la sonde d’aspiration
- Aspirer en retirant la sonde
- Fermer la molette du système clos
- Rincer la sonde à l’aide d’un des flacons de sérum physiologique en utilisant l’interface dédiée



ASPIRATION :	ASPIRATION:
Tourner la molette du système clos	Turn the knob of the sealed system to on
Introduire la sonde d’aspiration	Introduce the suction probe
Aspirer en retirant la sonde	Aspirate while removing the probe
Fermer la molette du système clos	Turn the sealed system knob to off
Rincer la sonde à l’aide d’un des flacons de sérum	Rinse the probe using one of the bottles of saline solution
Physiologique en utilisant l’interface dédiée	using the dedicated interface

Non-ventilated tracheostomised patient with inflated cuff:

A filter may be used over the cannula opening instead of an artificial nose, **but do not** add any additional circuit (due to the risk of increasing dead space and reducing tolerance of ventilation).

Non-ventilated tracheostomised patient with uninflated cuff:

The patient should wear a surgical mask. If possible, use a one-way speaking valve during the session, or re-inflate the cuff to perform respiratory physiotherapy.

Non-ventilated tracheostomised patient with no cuff:

The patient should wear a surgical mask. If possible, use a one-way speaking valve during the session.

## REFERENCE TEXTS

GAVO2 procedures: Home respiratory apparatuses for patients with a confirmed or suspected respiratory virus. Date of creation: February 2020. Author: Prof Jesus Gonzalez-Bermejo (on behalf of the GAVO2 group of the Francophone Society of Respiratory Medicine)

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