# Preparation

In order to start SHFNO treatment, you need to produce the supplied 3D models (see next part of the documentation) and also establish treatment guidelines, indications and contraindications, etc. specific to your practice setting. The examples provided in this documentation are provided as a guidance (*see Legal Disclaimer*). This guidance may change over time as our experience with SHFNO grows. Also, please bear in mind that some details may be highly healthcare system specific.

## Basic Guidelines

Any form of HFNO treatment is prescribed by the treating physician. Administration is based on local recommendations and guidelines (including adaptations of this document).

The nurse or respiratory technician administering HFNO treatment is responsible for matching patients, however, all SHFNO treatments need to be approved by the treating physician.

In COVID-19 the target O2 saturation for otherwise healthy individuals is 92-96 %, whereas in individuals with COPD or other risk factors for CO2 retention the target saturation is 88-92 %.

In COVID-19 the maximum treatment levels are are often set to 30 litres / minute of airflow and FiO2 of 50%.

**It is strongly recommended that individual institutions and physicians that attempt to use this documentation to provide SHFNO to patients as a last resort, develop a written informed consent for use identifying potential benefits of therapy, risks, possible complications and alternatives to treatment to be used with patients and/or their appointed representatives/surrogate decision-makers who will use this therapy. This consent should be signed prior to use. Written consent should be obtained in addition to informed consent discussions with patients and/or their appointed representatives/surrogate decision-makers, so patients understand and agree to the risks of utilizing the treatment described.**

## Indications for SHFNO

Include that all of the following criteria are met:

- Patient has indication for HFNO in COVID-19.*
- Patient lacks contraindication for HFNO.†
- Patient lacks contraindication for SHFNO.
- ***No other method of supplying HFNO is currently possible.***

**For example: Significant hypoxaemia despite maximal oxygen therapy using standard nasal cannulae or reservoir masks. Refer to your current guidelines regarding HFNO use.*

†*Refer to your current guidelines*

## Contraindications for SHFNO

If any of the following criteria are met:

- Patient has contraindication for HFNO.‡
- Patient has a *confirmed* secondary bacterial infection.
    - N.B. Empiric antibiotic treatment does not necessessarily constitute contraindication.

- Patient is a known carrier of drug resistant bacteria.
    - N.B. Screening is not required to be eligible for SHFNO.

‡*Refer to your current guidelines*

## Patient Selection Criteria

The patients meet, or are expected to meet, all of the following criteria:

- Roughly equal in body size.
- Use the same size Optiflow cannula.
- In cohort care or can be transferred to cohort care setting.
- Similar treatment requirements.
    - Patients need to be able to sustained on HFNO treatment with a maximum flow of 30 lpm
    - When needing to start a new patient on SHFNO/HFNO when all Airvo 2 systems are in use, we recommend matching patients with ongoing HFNO treatment with the same or similar settings so that new patients whenever possible can be started on discrete HFNO until requirements for that patient are identified.

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