

Name : _____
 Hosp No: _____
 DOB: _____ (affix label)
 NHS No: _____
 Male / Female

HUMIDIFIED NASAL HIGH FLOW (NHF) OXYGEN

INITIATION CARE PLAN

Decision to commence NHF made By :

Consultant Mid Grade Other (provide details)

NB: This protocol has only been designed for use on patient located on the ward based AGP areas.

Form Completed By :

(Sign and print name with bleep and designation)

CONSENT:

Given By Patient Patient Unable to Give Consent Discussed with family

What is it?

Nasal High Flow is a technique which allows:

- H** – Heating and Humidifying of air/oxygen delivered.
- I** – Inspiratory flow demands to be met.
- F** – Functional Residual Capacity to be increased (?small amount of PEEP).
- L** – Lighter interfaces to be used (can mean better tolerance).
- O** – Oxygen dilution to be minimised (reduced entrained room air).
- W** – Washout of pharyngeal dead space (reducing CO2 re-breathing).

Indications for use:

To provide effective palliation of symptoms in those with end stage lung disease **AND** who have a valid DNACPR order in their case notes.

OR

To provide oxygenation support to those with type 1 respiratory failure who are for active ward based management who are **NOT** deemed to be candidates for escalation to critical care by a senior clinician **AND** who have a valid DNACPR order in their case notes.

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INCLUSION CRITERIA:

Patients ≥ 18 years old **AND**
 Type 1 respiratory failure (PaO₂ < 10KPa on 15L min⁻¹ on NRB
 Spo₂ < 93% on 15L via NRB) **AND**
 ward based care as ceiling of treatment (discussed and documented) **AND**
 Primary respiratory diagnosis **AND**
MUST exclude pneumothorax

EXCLUSION CRITERIA:

- Patients ≤ 18 years old
- Pneumothorax
- Anyone who would be consider as escalation to ITU
- Diagnosis fitting pulmonary oedema
- Respiratory failure as part of multiorgan failure (unless agreed by ward consultant)
- Patients unable to protect / maintain own airway
- Acute Type 2 Respiratory Failure/Hypercapnia
- Severe Epistaxis
- Basal Skull Fractures
- Nasopharyngeal Anatomical Abnormalities
- Recent Maxillofacial, Upper GI or Thoracic Surgery
- No trained member of staff on ward

PALLIATIVE MANAGEMENT:

All patients started on NHF with a palliative diagnosis need the following considerations:

1. Resuscitation status discussed, agreed and documented.
2. Review of PRN medications for end of life symptom control (please see guidance on the intranet under End of Life Care).
3. Please consider their need for a syringe driver to palliate symptoms especially prior to weaning in last days/hours of life.

All patients with a palliative diagnosis at outset OR who deteriorate despite NHF need **prompt referral to palliative care** for involvement in discussions around symptom control as well as involvement prior to withdrawal of NHF.

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PARAMETERS:

- Flow:** If possible, start at 40 L/min. If not tolerating flow, can reduce by 10L/min then titrate up again if tolerated (most will tolerate much higher flow). Can titrate flow up by 10L/min up to 60L/min.
- FiO2:** start as per target saturation, example start at 40% oxygen (increase or decrease O2 concentration as per your target sats).
- Temp:** optimum temp 37 °C if not tolerating can reduce to 34 °C. (temperature allows the device to humidify the oxygen which aids tolerance).

If target saturations still not achieved, or symptoms not improved then urgent referral to Medical team - review needed.

MONITORING:

- Oxygen saturations and respiratory rate are reliable indicators of treatment success or failure
- Patients will require ½ hourly observations for 2 hours initially, then hourly for 2 hours, then once improving – as per NEWS and escalation plan.
- ABGs should be taken 1 hour after commencing treatment, and repeated when clinically appropriate.

FiO2 AND Flow Rate must be documented on NEWS chart please

WEANING:

If patients are improving

- First reduce the FiO2 in line with target sats
- The reduce flow by 5-10L/min
- Slow NHF; when flow reaches 10-20L/min with FiO2 ≤0.35 can stop NHF (convert to appropriate oxygen therapy if required)

At end of life

- Please refer to palliative care box above
- Wean the NHF by reducing flow 5-10L/min when everything and everyone is prepared
- Undertake withdrawal of NHF when adequately trained staff available to support treatment withdrawal
- Undertake withdrawal of NHF in working hours where possible.

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DATE AND TIME HIFLO COMMENCED: _____

PATIENT OBS

NHF SETTINGS

| Date/Time | | | Initial Settings |
|-------------|--|---------------|------------------|
| pH | | Flow | |
| pO2 | | FiO2 | |
| pCO2 | | Temp | |
| Base Excess | | Doctor's Name | |
| GCS | | Bleep | |
| NEWS | | Signature | |

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