

Brighton and Sussex University Hospitals

The use of Home Non-Invasive Ventilation for
chronic hypercapnic respiratory failure: Pathway for outpatient set-up and monitoring of Adult
Home non-invasive ventilation (H-NIV) Therapy.

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Section 1	Introduction	2
Section 2	Background	2
Section 3	Purpose	2
Section 4	Definitions	2
Section 5	Identification for patients suitable for H-NIV	3
Section 6	Links to other trust documents	3
Section 7	Initial assessment for H-NIV outpatient set-up	4

1. Introduction:

This pathway is intended to guide the home non-invasive ventilation (H-NIV) service staff in the set-up and monitoring of patients requiring H-NIV.

2. Background:

In Brighton and Hove area, patients requiring H-NIV, are required to be referred to the Lane Fox Unit in London for set-up and management.

For those patients being set up whilst inpatients, this means that they are set-up either remotely by the Lane Fox Unit or they are transferred to London for an in-patient set-up.

As a consequence, there is a considerable delay in discharge, impacting not only on the patient's overall experience and wellbeing, but also on the hospital's patient flow.

Therefore, the aim of the H-NIV service is to fill the gap in this service, improving patient's experience of the service, reducing hospital stay and risk of any iatrogenic health related problems, such as hospital acquired pneumonia. In addition, its implementation will improve patient flow throughout the hospital, reducing length of stay considerably.

3. Purpose

The purpose of this pathway is to standardise care in the management of H-NIV patients with the following conditions:

- Hypercapnic COPD
- Obesity hypoventilation syndrome (OHS)
- Obstructive sleep apnoea (OSA) overlap with OHS.
- Chest wall disorders

The service will not include complex ventilation cases at present. **Patients requiring NIV with a diagnosis of neuromuscular disorders or who require ventilation through tracheostomy will continue to be referred to the Lane Fox unit.**

4. Definitions

Respiratory failure occurs when there is inadequate gas exchange (either oxygen or carbon dioxide or both) between the lungs and blood stream.

Hypercapnia is the increase in carbon dioxide levels in arterial blood.

Hypoxaemia is the decrease in oxygen level in arterial blood.

Non-invasive ventilation (NIV) is the provision of ventilatory support through a patient's upper airway using a mask or similar device.

5. Identification of patients suitable for H-NIV.

The H-NIV service in Brighton and Hove will be targeting patients with non-complex chronic hypercapnic respiratory failure. The main medical conditions will be:

- Chronic Obstructive Pulmonary Disease (COPD)
- Obesity Hypoventilation with or without Obstructive sleep apnoea.
- Chest wall disorders

The service will also be supporting patients as they come in with acute hypercapnic respiratory failure and are identified as benefiting from H-NIV.

6. Links to other Trust documents

C001 - Management of Medical Devices training

Mental Capacity Act Policy

Infection control policy

C005 - Policy for Consent to Examination or Treatment

7. Initial Assessment for Home Non-Invasive Ventilation: outpatient set-up

