

Policy for use of Non-invasive ventilation for Chronic Obstructive Pulmonary Disease at home

Category: Restricted

What is Non-invasive ventilation?

Non-invasive ventilation (NIV) is an external treatment used to help people with severe problems with breathing. It involves wearing a mask connected to a machine (ventilator) which makes breathing in and out easier. It supports the muscles in the lungs to work properly, especially during the night.

Why is it used?

Everyone breathes in oxygen from the air to stay alive. The oxygen goes into the blood through the lungs. When the body has used the oxygen, it produces carbon dioxide which is breathed out. This is called ventilation.

Some people with severe lung problems are unable to breathe in enough oxygen and breathe out carbon dioxide which can lead to the lungs not working properly (hypoventilation and hypercapnia), a high heart rate and a possible heart attack.

Hypoventilation and hypercapnia

This is when breathing becomes very slow so that a low amount of oxygen is taken into the body (hypoventilation) resulting in a high amount of carbon dioxide in the blood (hypercapnia).

Chronic Obstructive Pulmonary Disease

Chronic Obstructive Pulmonary Disease (COPD) is the name for a group of lung conditions that cause breathing difficulties. It includes: emphysema (damage to the air sacs in the lungs) and chronic bronchitis (long-term inflammation of the airways). Symptoms may include constant breathlessness, constant chesty cough with phlegm, frequent chest infections and constant wheeze. The breathing problems tend to get gradually worse over time and can limit the patient's normal activities.

Causes of COPD

COPD happens when the lungs become inflamed, damaged and narrowed. The main cause is smoking. However, it can sometimes affect people who have never smoked but have had long term exposure to harmful fumes, or dust, or has been passed down through parents. Damage to the lungs caused by COPD is permanent; however, treatment may help to slow down the condition.

Treatments

Treatments include:

- smoking cessation to help patient with COPD to stop smoking
- inhalers and medications
- pulmonary rehabilitation programme of exercise and education
- surgery or a lung transplant

COPD can result in patients being admitted to hospital and needing support to breathe through NIV.

Eligibility Criteria

Non-invasive ventilation at home is restricted. For patients with long term COPD the NHS commissioning organisation (CCG), who is responsible for purchasing healthcare on behalf of the population, will only pay for the use of NIV in the home if:

- The patient has a measured lung capacity of $<0.70\text{L}$
AND
- A measured carbon dioxide level equal to or greater than 6.5kPa

The patient must **also** have ONE of the following:

- a reduced quality of life identified by symptoms consistent with sleep disordered breathing problems
OR
- more than one condition affecting the level of oxygen in the blood which could lead to pulmonary hypertension or heart failure
OR
- Two or more hospital admissions over the past 12 months needing NIV treatment admissions to which the patient has responded well

This means the patient's NHS commissioning organisation (CCG), who is responsible for buying healthcare services on behalf of patients, will **only** fund the treatment if an Individual Funding Request (IFR) application has shown exceptional clinical need and the CCG supports this.