

Department of Respiratory Physiology and Sleep

Non-Invasive Ventilation in Hospital

Information leaflet for patients receiving non-invasive ventilation

Introduction

This leaflet aims to explain what non-invasive ventilation (NIV) is and why you are having it as part of your treatment in hospital. This leaflet does not replace the consultation that you will have with your doctor. It will hopefully explain what you have discussed. If you do have any other questions with regards to your NIV treatment then please speak to a member of the NIV team.

What is NIV?

Non-invasive ventilation (NIV) is a machine that assists with your breathing. The NIV machine does not breathe for you but it does assist you when you take a breath. NIV may be used to help you with your breathing when your body is unable to clear enough carbon dioxide (CO₂) without assistance. This may be because you have a problem with your lungs such as COPD or your breathing muscles are too weak to take a big deep breath.

Why do I need NIV?

NIV is a treatment that will help you take a deeper breath in and allow you to remove CO₂ that has built up in your lungs. The NIV machine will assist you when you take a breath and allow your lungs and breathing muscles to rest. Before you start NIV you may be given nebulisers, antibiotics and steroids. Your doctor will discuss your treatment in more detail with you.



What does NIV involve?

You will have a mask on your face that will cover your nose and your mouth. This mask will be quite tight and this is necessary in order to keep a tight enough seal so that the air does not escape. There will be tubing that connects from your mask to the NIV machine. The NIV machine will provide a set pressure that will support your breath allowing you to take a bigger and more efficient breath.

You may find some initial discomfort with NIV and this is because there will be some resistance in your lungs that is keeping your airway open.

What are the side effects of NIV?

NIV has very few side effects however there are some that you need to be aware of:

- The skin where the mask sits can breakdown
- Air can accumulate in your stomach causing bloating
- Your mouth and nose can become dry

In order to try and help with these side effects you may need:

- A dressing for your nose
- A thin tube that goes down your nose and into your stomach to release the air
- Regular oral care, hydration and a humidifier on the machine

What investigations and monitoring will you have with NIV?

Before you start NIV, a blood sample will be taken from your wrist. This is called an arterial blood gas sample. This will show the doctor and the NIV team what your oxygen and CO₂ levels are. Further arterial blood gas samples will be taken whilst you are on NIV to ensure that the treatment is working. You may also have a small electrode placed on your skin as an alternative to repeated arterial blood gas samples and this also monitors your pCO₂ levels.

Patient Information

When you initially start on NIV your heart rate and oxygen saturations will be continually monitored with a machine at the side of your bed. Your blood pressure will also be regularly monitored because NIV can cause a drop in your blood pressure.

How long will you be on NIV?

You will be on NIV for the majority of the first 24 hours. When your CO₂ levels begin to improve and the NIV team are happy that it is at an acceptable level you will then start to have breaks from the NIV. Initially you will have short breaks to allow you to eat and drink, this will then be extended over the next few days. Your time off NIV will initially occur during the day and then you will attempt to come off NIV overnight.

Will I need NIV at home?

Some patients may need to have NIV at home. This may be because you were unable to manage without NIV when you are sleeping. Most people will only need NIV at night when they sleep, but some people may also need it in the daytime.

If it is decided that you need to have NIV at home your doctor and your NIV team will discuss this with you and explain everything that you will need to know.

The Trust has access to interpreting and translation services. If you need this Information in another language or format, please contact 02476 966734 and we will do our best to meet your needs.

The Trust operates a smoke free policy.

Document History

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