

Community Nebuliser Assessment and Use

Information for patients, relatives and carers



① For more information, please contact:

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Introduction

Nebuliser treatment is a way of delivering medication directly to your lungs. The fine mist a nebuliser creates allows smaller particles of the drug to be breathed deeply into the lungs.

Nebulisers should only be used if prescribed and provided by a healthcare professional.

What will the assessment involve?

You will be assessed by a respiratory physiotherapist following referral due to challenges with either airway clearance, frequent exacerbations (infections) or ongoing colonisation of micro-organisms (bugs) in your phlegm that requires treatment with nebulised antibiotics.

The main medication we will assess for nebulisation are:

- **Hypertonic saline** (salty water solution to clear phlegm and reduce infections)
- **Colomycin** (first line antibiotic to treat pseudomonas colonisation)
- **Tobramycin** (second line antibiotic to treat pseudomonas colonisation)

Your assessment is not usually for nebulised salbutamol, this is used for airway bronchodilation (opening) and advised to be taken through an inhaler in most circumstances which is prescribed by your GP.

It is important that you are well when you attend for your assessment. If you have an infection and require antibiotics and/or steroids at the time of your assessment, it will probably impact on your ability to tolerate the nebulised medication and the outcome of whether you will be prescribed it.

Your assessment will involve lung function tests before and after the nebulised medication. These are to assess your lung function. Your respiratory physiotherapist will explain to you the technique required during the lung function tests.

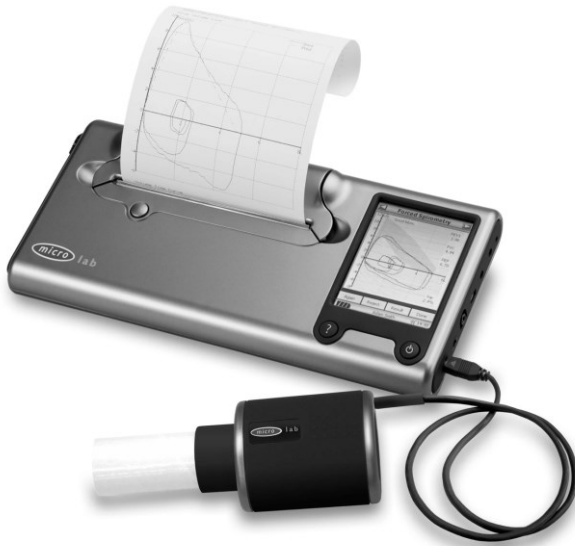


Image above of Spirometry machine which will be used for your lung function test.

Your oxygen saturations and heart rate will be monitored while you inhale the nebulised medication, and we will listen to your chest before and after your treatment.

What do I need to bring with me?

It is important that you bring your reliever inhaler if you are prescribed one.

Examples of reliever inhalers include:

- Salamol Easi-Breathe
- Salbutamol MDI
- Salbutamol/Ventolin Accuhaler
- Bricanyl/Terbutaline Turbohaler

Please also bring a drink of water or another hydrating drink as the nebulised medication can be drying to your mouth and airways.

Nebulisers and Compressors

If the assessment is completed without any issues and the lung function tests remain within an acceptable range, you will be given a nebuliser and compressor to use at home.

There are several different makes and models of nebuliser and compressors (machines). All compressors have the following features:

- Main leads and plug
- On/off Switch
- Outlet pipe
- Inlet filter

As well as the compressor, you will also be given a nebuliser kit comprising:

- Mouthpiece
- Nebuliser pot
- Tubing

Image of Nebuliser pot:

Mouthpiece →

Tubing →



Nebulised Antibiotics

If you are receiving antibiotics through your nebuliser, special filters are needed to prevent other people inhaling unwanted antibiotics.

This system is called the ‘PARI LC Plus Filter’. You must change the round cotton filter pads after every dose.

Image of LC Plus Filter



Image of Filter pads



How to use your nebuliser compressor system

You will have been shown how to use the nebuliser and compressor during your assessment. Your consultant will prescribe the drugs you are to use through the nebuliser if you are taking nebulised antibiotics and your GP will prescribe hypertonic saline. It is important to take these as instructed. The hospital outpatient pharmacy will contact you when your antibiotics are ready for collection. Your local pharmacy will contact you when your hypertonic saline is ready for collection if you have signed up for notifications.

a) To use your nebuliser, you will need to have the compressor on a firm surface where it can be plugged in and where you can sit in a comfortable chair.

Try to allow time so that you can be relaxed during your treatment.

b) Attach the mains lead to the compressor and plug into the mains supply.

c) Place one end of the plastic tubing onto the outlet pipe. The other end should be attached to the nebuliser pot. This will be demonstrated during your appointment.

- d) The medication you have been prescribed comes in plastic ampoules. Check the expiration date before using the ampoule.
- e) Twist and snap the top off the ampoule, squeeze the contents of the ampoule into the main body of the nebuliser pot (see below) and replace the top. These can be disposed of in a normal bin.



Taken from PARI website. (Daily inhalation therapy? 5 tips for how to integrate inhalation therapy into your daily routine - PARI)

- f) Attach the nebuliser pot to your mouthpiece.
- g) You are ready to commence treatment.

Taking your treatment

- a) To get the most benefit you should sit comfortably in an upright position and relax as much as possible.
- b) Place the mouthpiece inside your mouth, making sure you get a good seal with your lips.
- c) Switch the machine on with the grey button and the electric motor will make a noise.
- d) When switched on, the nebuliser makes a fine mist for you to breathe in.
- e) You should breathe normally through your mouth, taking an occasional deeper breath, until your treatment is complete.
- f) The length of treatment varies slightly for each patient and is dependent on the medication to be used and the machine you are using. This will be discussed during your appointment.
- g) Your treatment is finished when the tone of the machine changes and the amount of mist produced reduces. There will still be a very small amount of fluid left in the nebuliser pot.
- h) Switch off your machine, your treatment is now complete.

How to look after your nebuliser and compressor system

It is important to keep your nebuliser and compressor system clean and in good working order. This ensures you get the most benefit from the treatment.

- a) Your nebuliser has been provided for you only. It should not be shared with anyone else to reduce the risk of cross-infection.
- b) It is important to keep your nebuliser equipment clean and dry to prevent bacteria growing inside the equipment.
- c) After every use, disconnect the nebuliser from the tubing and turn on the compressor for a few seconds to clear any moisture from the tubing.
- d) Wash the mouthpiece (or mask) and nebuliser pot in hot soapy water, rinse under hot water to clear thoroughly, and shake off excess water. Immerse nebuliser parts once a day in boiling water for at least five minutes to disinfect.
- e) Allow to air dry. Do not dry with a cloth as fibre particles can remain in the device.
- f) Make sure all parts are dry before reassembly. Ensure the lid and inner parts are correctly in place. This will be demonstrated during your appointment.

- g) Keep your compressor on a firm surface; do not block the ventilation holes.
- h) Keep the compressor clean by wiping with a clean, damp cloth.
- i) The inlet filter on the compressor will become dirty over time. You should change it every 12 months approximately. If the filter becomes blocked, the compressor becomes less efficient.
- j) Mouthpieces, pots, and tubing should be changed every year. Spare disposable parts should be obtained from the same organisation who provided the equipment.
- k) If your machine is not working properly and you cannot find a fault, please contact your service provider.

Nebuliser equipment for patients at York and Scarborough Teaching Hospitals are provided by Medequip.

Medequip contact details:

Email: north.yorks@medequip-uk.com
Telephone: 01423 226240

Opening hours: Monday-Friday 8am-5pm
Closed Saturday and Sundays

What to do if things go wrong

Problem

Possible solution

- | | |
|--|--|
| i. The compressor does not run. | a) Check that the mains lead is connected firmly and that the machine is switched on.

b) If there is no improvement after trying the above, the compressor will require servicing- contact Medequip to arrange to have your compressor serviced |
| ii. The compressor runs but the nebuliser makes no mist. | a) Check that the plastic tubing is connected.

b) Clean the nebuliser pot again.

c) Is the inlet filter dirty - if so - replace it.

d) If this does not help, you will need to replace the nebuliser pot. |

Always keep a spare nebuliser pot, mask or mouthpiece, tubing and filter. If you do not have spare consumables, contact the outpatient respiratory physiotherapy team for them to be ordered for you.

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact:

Respiratory Physiotherapy

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Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email yhs-tr.patientexperienceteam@nhs.net.

An answer phone is available out of hours.

Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

Patient Information Leaflets can be accessed via the Trust's Patient Information Leaflet website:
www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/

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Owner	Respiratory Physiotherapy Outpatients Team
Date first issued	March 2026
Review Date	March 2029
Version	7 (issued March 2026)
Approved by	Community Therapy Team / Family Health Care Group
Document Reference	PIL98 v7

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