

Newcastle Bronchiectasis Service

Cardiothoracic Directorate

Nebulised (inhaled) Gentamicin

Your doctor has prescribed a drug called gentamicin for you. This is an inhaled drug, which is one that you breathe in. This information sheet tells you about the drug and how it will be given. This will allow you to take this drug safely at home. There are also some instructions showing you how to maintain the equipment and some contact numbers if you need help.

What is nebulised gentamicin?

Gentamicin is an antibiotic that is used to treat a number of infections. This medicine can be given by injection into your muscle or vein, or it can be put into a device called a nebuliser and then inhaled. The nebuliser converts the liquid gentamicin into a mist which you can breathe in. This will take around 15 minutes.

There are several gentamicin preparations available in the UK, however not all of them should be used in a nebuliser. This is because some brands of gentamicin contain alcohol which is not suitable for nebulisation. Current brands which are suitable to be used in the nebuliser are Cidomycin[®] and Genticin[®].

Why do I need nebulised gentamicin?

Research studies have shown that if you have certain conditions such as bronchiectasis, regular treatment with inhaled antibiotics can reduce the number of bacteria in your lungs which means that:

- you may have fewer flare ups of your chest
- you may have less admissions to hospital
- your symptoms may improve
- your lungs may stay healthier for longer
- In some patients this treatment can kill off certain bacteria.

How do I use nebulised gentamicin?

You will be shown how to prepare and administer the antibiotic, how to clean the nebuliser and how to operate the compressor (the machine that drives the nebuliser). We will give you another leaflet explaining this.

We also provide written instructions on how to use the nebuliser. For more information see the section in this leaflet called 'Instruction for the use of nebulised Gentamicin'.

Once you have set the nebuliser up, it usually takes around 15 minutes to breathe in the entire gentamicin dose from the nebuliser.

What are the possible side-effects?

As with all medicines inhaled antibiotics can cause some side-effects, the most common one is chest tightness. Some patients are unable to take inhaled antibiotics because of this.

The first time that you have inhaled antibiotics we will give you a 'test' dose on ward 29 and monitor your lung function. If it is safe to do so, then we start the inhaled antibiotic on a more permanent basis.

If you do experience tightness of the chest sometimes we can give another inhaled medicine called salbutamol to help you take the inhaled antibiotic. Salbutamol is usually given in the nebuliser before the dose of antibiotic is inhaled.

If your chest becomes tight when you are at home, stop the inhaled antibiotic for 2-3 days. If your symptoms improve then it's likely to be related to the inhaled antibiotic. Stop the treatment and let us know by contacting Dr De Soyza's team (numbers below). If your symptoms do not improve then they are likely to be caused by something else and you should contact your GP.

Inhaled Gentamicin and Pregnancy.

Do not use Gentamicin if you are pregnant. It could harm the unborn baby. Use effective birth control, and tell your doctor if you become pregnant during treatment.

It is not known whether Gentamicin passes into breast milk or if it could harm a nursing baby. You should not breast-feed while using this medicine.

How long will I be on treatment?

If you are happy with the inhaled treatment then we will usually recommend that you stay on it for a trial period of 3 - 4 months. If it is effective then we would recommend that you remain on this drug long term.

Where do I get the equipment from?

We will supply you with a compressor unit and nebulisers and other equipment. The hospital will give you a month's supply of the drug and anything else you will need to use this medicine (for example needles, syringes, a sharps bin). We will contact your GP to ask them for a further supply of everything when you are at home.

If you have any problems with the supply of equipment, please let us know as soon as possible so you don't miss any doses. You can dispose of your sharps bin at your local GP surgery or pharmacy. Alternatively you can bring it back to the hospital.

Instructions for the use of nebulised Gentamicin

Your treatment is called Gentamicin and the dose is 80mg. You should take this treatment twice per day, around 12 hours apart.

Equipment required

- One vial of gentamicin 80mg
- One 5ml syringe
- One blue needle
- One vial of sodium chloride 0.9% (5ml)
- Nebuliser
- Sharps box

Instructions

1. Wash and dry hands
2. Prepare a clean surface as directed
3. Put the blue needle onto the syringe
4. Carefully snap open the Gentamicin vial – check that the expiry date of the gentamicin
5. Open up the vial of sodium chloride 0.9%
6. Draw up the 2ml of 80mg Gentamicin
7. Draw up a further 2ml of sodium chloride 0.9%. You should now have a total of 4ml in the syringe.
8. Add this gentamicin and saline mix into the nebuliser chamber
9. Dispose of the needle/syringe into a sharps bin (your GP can dispose of full sharps bins and give you a new one)
10. Put the nebuliser together and you're ready to nebulise.
11. When nebulisation is finished is finished – rinse the chamber and mouth piece and dry thoroughly.

Remember

- Use a new needle and syringe for every dose you make up
- Dispose of your sharps immediately
- Don't make up more than one dose at a time. Make them up as you need them.

- Your compressor will need a service once per year. Please arrange this with the lung function department.

Looking after the nebuliser

You will be using a special nebuliser with an exhaust filter. This is to limit antibiotic escape into the surrounding air. There is a filter pad contained within it, and this should be changed every time you use the nebuliser.

Even when using this filter, some antibiotic will escape into the surrounding air. Therefore, you should nebulise with the window open and the door shut. After nebulising, leave the window open for at least 30 minutes, again with the door shut.

- You can wash your nebuliser with warm soapy water daily.
- You should also boil it in water with a few drops of washing up liquid for 10-15 minutes once a week.

For further information

Contact details

- John Davison Specialist Nurse – Complex Lung Disease Tel: 0191 2139114 (for general advice - Monday to Friday 8:30am – 4:30pm)
- Dr. De Soyza's Secretary 0191 2137468 (for questions about appointments - Monday to Friday 9.00am – 5.00pm)
- Lung Function Department 0191 2137780 (for advice about the nebuliser / compressor - Monday to Friday 9.00am – 5.00pm)
- Ward 29 0191 2137029 (for out of hours advice - 24 hours a day)

Medicines Information Patient helpline on 0191 2823016 Monday to Friday 9.00am to 4.00pm (excluding bank holidays)

The Patient Advice and Liaison Service (PALS) can offer on-the-spot advice and information about the NHS. You can contact them on freephone 0800 032 02 02 or e-mail northoftynepals@nhct.nhs.uk

Useful websites

If you would like further information about health conditions and treatment options, you may wish to have a look at the NHS Choices website at www.nhs.uk. On this website there is an information prescription generator www.nhs.uk/ips which brings together a wealth of approved patient information from the NHS and charity partners which you may find helpful.

Information produced by: John Davison (MSc RGN, Specialist Nurse – Complex Lung Disease)

Date: July 2013

Review date: July 2015