Package leaflet: Information for the patient

Vantobra® 170 mg nebuliser solution
tobramycin

Read all of this leaflet carefully before you start using this medicine because it contains important information for you.
- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor, or pharmacist.
- This medicine has been prescribed for you only. Do not pass it on to others. It may harm them, even if their signs of illness are the same as yours.
- If you get any side effects, talk to your doctor, or pharmacist. This includes any possible side effects not listed in this leaflet. See section 4.

What is in this leaflet

1. What Vantobra is and what it is used for

What Vantobra is
Vantobra contains an antibiotic medicine called tobramycin. It belongs to a class of antibiotic medicines called aminoglycosides.

What Vantobra is used for
Vantobra is used in patients with cystic fibrosis aged 6 years and older to treat lung infections caused by bacteria named *Pseudomonas aeruginosa*.

Pseudomonas aeruginosa is a bacterium that frequently infects the lungs of cystic fibrosis patients at some time during their lives. If the infection is not properly treated, it continues to damage the lungs, causing further problems with breathing.

How Vantobra works
When you inhale Vantobra, the antibiotic can enter directly into your lungs to fight the bacteria causing the infection. It works by disrupting the production of proteins that the bacteria need to build their cell walls. This damages the bacteria and eventually kills them.

2. What you need to know before you use Vantobra

Do not use Vantobra:
- if you are allergic (hypersensitive) to tobramycin, to any type of aminoglycoside antibiotics, or to any of the other ingredients of Vantobra (listed in section 6).

If this applies to you, tell your doctor before using Vantobra.

Warnings and precautions
Talk to your doctor if you have ever had any of the following conditions:

- hearing problems (including noises in your ears and dizziness);
- kidney problems;
- chest tightness;
- blood in your sputum (the substance you cough up);
- muscle weakness that lasts or becomes worse over time, a symptom mostly related to conditions such as myasthenia (muscle weakness) or Parkinson's disease.

If any of these apply to you, tell your doctor before using Vantobra.

If you have problems with your hearing or kidney function, your doctor may take blood samples to monitor the amount of Vantobra in your system.

Inhaling medicines can cause chest tightness due to narrowing of the airways, and this can happen with Vantobra. Your doctor may ask you to use other appropriate medicines to widen the airways before using Vantobra.

Strains of *Pseudomonas* can become resistant to treatment with an antibiotic over time. This means that Vantobra may not work as well as it should over time. Talk to your doctor if you are concerned about this.

If you are also taking tobramycin or another aminoglycoside antibiotic by injection, it may increase the risk of side effects and your doctor will monitor for these as appropriate.

Children
The medicine is not intended for use in children under 6 years of age.

Other medicines and Vantobra
Tell your doctor or a pharmacist if you are taking or have recently taken any other medicines, including medicines obtained without a prescription.

You should not take the following medicines while you are using Vantobra:
- furosemide, a diuretic ("water tablet");
- other medicines with diuretic potential such as urea or mannitol;
- other medicines which may harm your kidneys or hearing:
    - amphotericin B, cefalotin, polymyxins (used to treat microbial infections), ciclosporin, tacrolimus (used to reduce the activity of immune system). These medicines may harm the kidneys;
    - platinum compounds such as carboplatin and cisplatin (used to treat some forms of cancer). These medicines may harm the kidneys or hearing.

The following medicines can increase the risks of harmful effects occurring if they are given to you while you also take tobramycin or another aminoglycoside antibiotic given by injection:
- anticholinesterases such as neostigmine and pyridostigmine (used to treat muscle weakness), or botulinum toxin. These medicines may cause muscle weakness to appear or become worse.

If you are taking one or more of the above medicines, talk to your doctor before you use Vantobra.

You should not mix or dilute Vantobra with any other medicine in your Tolero® nebuliser handset which is provided together with Vantobra.
If you are taking several different treatments for cystic fibrosis, you should take them in the following order:

1. Bronchodilator therapy, such as salbutamol
2. Chest physiotherapy
3. Other inhaled medicines
4. Vantobra
   Please check this order with your doctor as well.

Pregnancy and breast-feeding
If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor for advice before using this medicine.

It is not known whether inhaling this medicine while you are pregnant causes side effects. When they are given by injection, tobramycin and other aminoglycoside antibiotics can cause harm to an unborn child, such as deafness and kidney problems.

If you are breast feeding, you should talk to your doctor before using this medicine.

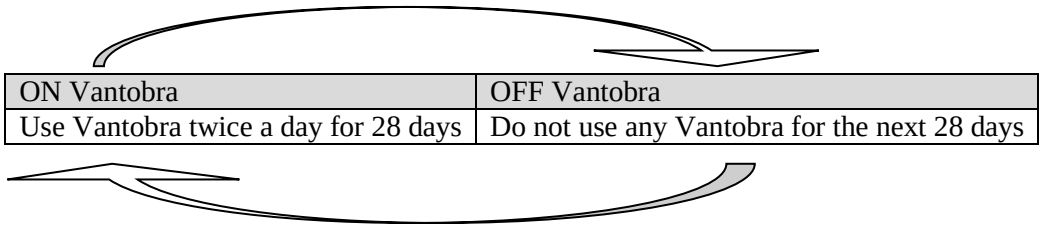
Driving and using machines
Vantobra is not expected to affect your ability to drive or use machines.

3. How to use Vantobra

Always use this medicine exactly as your doctor has told you. Check with your doctor if you are not sure.

The recommended dose is two ampoules each day (one in the morning and one in the evening) for 28 days.

- The dose is the same for all persons aged 6 years and older.
- Inhale by mouth the full content of one ampoule in the morning, and one ampoule in the evening using the Tolero® nebuliser handset.
- It is best to have an interval as close as possible to 12 hours between doses, but this interval must be at least 6 hours.
- After you have used your medicine for 28 days, you then have a 28-day break, during which you do not inhale any Vantobra. You then start another course after the break (as illustrated).
- It is important that you keep using the medicine twice each day during your 28 days on treatment, and that you keep to the 28-day on / 28-day off cycle.



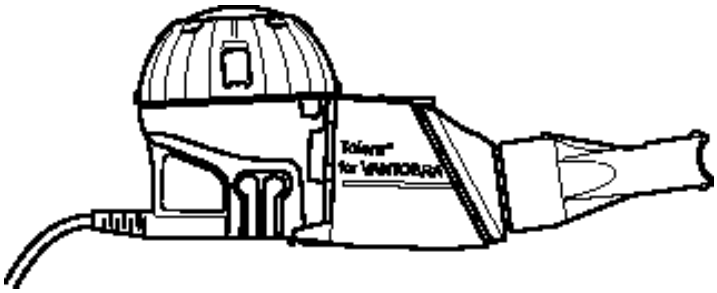
ON Vantobra	OFF Vantobra
Use Vantobra twice a day for 28 days	Do not use any Vantobra for the next 28 days

Repeat cycle

Continue using Vantobra on this cyclical basis for as long as your doctor tells you.
If you have questions about how long to use Vantobra, talk to your doctor or pharmacist.

Preparing Vantobra for inhalation

- Use Vantobra only with the Tolero® nebuliser handset shown in the picture below to make sure you inhale the correct dose. Do not use the Tolero® nebuliser handset for any other medicine**.**
- Read the Instructions for Use provided with the handset device before use.



- Make sure you have an eFlow®*rapid* or eBase® controller to connect the Tolero® nebuliser handset. The respective controller can be prescribed by your physician or purchased separately.
- Wash your hands thoroughly with soap and water.
- Remove one ampoule of Vantobra from the aluminium foil sachet just before inhalation.
- Keep the rest of the medicine refrigerated in the original box.
- Lay out all the pieces of your Tolero® nebuliser handset on a clean, dry paper or cloth towel. Make sure the nebuliser handset is on a flat, stable surface.
- Assemble the Tolero® nebuliser handset as illustrated in the Instructions for Use of the handset device.
- Hold the ampoule upright and tap lightly before twisting off the head part to avoid spilling. Empty the contents of one ampoule into the medication reservoir of the nebuliser handset.
- Begin your treatment sitting in an upright position, in a well ventilated room. Hold the nebuliser handset horizontally and breath normally through your mouth. Avoid breathing through your nose. Continue to inhale and exhale comfortably until the treatment is finished. When all of the medicine has been delivered, you will hear the "treatment complete" tone.
- If you need to interrupt your treatment for any reason, press and hold the On/Off button for one full second. To re-start the treatment, press and hold the On/Off button again for one full second to resume treatment.
- The Tolero® nebuliser handset must be cleaned and disinfected as described in the instructions for use of the device.
- Use a new Tolero® nebuliser handset for each treatment cycle (28 days on-treatment) as provided with the medicine.

Do not use an alternative untested nebuliser system because it may alter the amount of medicine reaching the lungs. This in turn may alter how well the medicine works and its safety.

If you use more Vantobra than you should
If you inhale too much Vantobra you may get a very hoarse voice. Tell your doctor as soon as possible. If Vantobra is swallowed, it is unlikely to cause severe problems as tobramycin is poorly absorbed from the stomach, but you should still tell your doctor as soon as possible.

If you forget to use Vantobra
If you forget to use Vantobra and there are at least 6 hours to your next dose, use your dose as soon as you can. Otherwise, wait for your next dose. Do not use a double dose to make up for a forgotten dose.

If you stop using Vantobra
Do not stop using Vantobra unless your doctor tells you to do so, as your lung infection may not be controlled sufficiently and may become worse.

If you have any further questions on the use of this medicine, ask your doctor or pharmacist.

4. Possible side effects

Like all medicines, this medicine can cause side effects, although not everybody gets them.

Some side effects can be serious
- chest tightness with difficulty in breathing (rare, affecting up to 1 in 1,000 people)
- allergic reactions including hives and itching (very rare, affecting up to 1 in 10,000 people).

If you experience any of these, stop using Vantobra and tell your doctor straight away.

People with cystic fibrosis have many symptoms of the disease. These may still occur while using Vantobra, but should not be as frequent or worse than before.

If your underlying lung disease seems to become worse while you are using Vantobra, tell your doctor straight away.

Other side effects may include:
Uncommon (may affect up to 1 in 100 people)
- shortness of breath
- voice alteration (hoarseness)
- increased cough
- sore throat

Rare (may affect up to 1 in 1,000 people)
- laryngitis (inflammation of the voice box that can cause voice alteration, sore throat and difficulty swallowing)
- Loss of voice
- headache, weakness
- nosebleed, runny nose
- ringing in the ears (normally transient), hearing loss, dizziness
- coughing up blood, producing more sputum than normally, chest discomfort, asthma, fever
- taste disturbances, feeling sick (nausea), mouth ulcers, being sick (vomiting), loss of appetite
- rash
- chest pain or general pain
- worsening of lung function test results

Very rare (may affect up to 1 in 10,000 people)
- fungal infections of the mouth or throat, such as thrush
- swelling of lymph glands
- sleepiness
- ear pain, ear problems
- hyperventilating, low oxygen levels in your blood, sinusitis
- diarrhoea, pain in and around the stomach
- red pustules, papules on the skin
- nettle rush, itching
- back pain
- generally feeling unwell

Reporting of side effects
If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via the Yellow Card Scheme at: www.mhra.gov.uk/yellowcard.
By reporting side effects you can help provide more information on the safety of this medicine.

5. How to store Vantobra

Keep this medicine out of the sight and reach of children.

Do not use this medicine after the expiry date which is stated on the ampoule or the sachet or box after EXP. The expiry date refers to the last day of that month.

Store in a refrigerator (2°C - 8°C). If you don't have a refrigerator available (such as when you are transporting your medicine) you can store the box with the medicine (sachets opened or unopened) below 25°C for up to 4 weeks. If the product has been stored at room temperature for longer than 4 weeks, it has to be disposed according to local requirements.

Do not use this medicine if you notice that it has become cloudy, or if there are particles in the solution.

Never store an opened ampoule. Once opened an ampoule should be used immediately, and any remaining product should be discarded.

Do not throw away any medicines via household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help to protect the environment.

6. Contents of the pack and other information

What Vantobra contains

- The active substance is tobramycin. One ampoule contains 170 mg of tobramycin as a single dose.
- The other ingredient(s) (excipient(s)) are: sodium chloride, calcium chloride, magnesium sulphate, water for injections, sulphuric acid and sodium hydroxide for pH adjustment.

What Vantobra looks like and contents of the pack
Vantobra nebuliser solution is provided in a ready-to-use ampoule.

Vantobra is a clear to slightly yellow coloured solution which can vary to a darker yellow. This does not change how Vantobra works provided that the storage instructions have been followed.

Ampoules are packed in sachets, one sachet contains 8 ampoules which correspond with 4 days of treatment.

Vantobra is available together with a Tolero® nebuliser handset. It is supplied in a box that contains two inner boxes, one with the medicine (56 ampoules with nebuliser solution in 7 sachets), and one with the nebuliser handset. A package is sufficient for one treatment cycle of 28 days.

Marketing Authorisation Holder and Manufacturer

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Other sources of information

Detailed information on this medicine is available on the European Medicines Agency web site: http://www.ema.europa.eu. There are also links to other websites about rare diseases and treatments.