



Intravesical gentamicin treatment

This leaflet gives you information about your course of intravesical gentamicin treatment. It explains what it is used for, why we need to check you regularly during treatment, possible side effects and instructions on how to do it yourself.

What is intravesical gentamicin and what it is used for?

Gentamicin is an antibiotic used to treat infections such as urinary tract infections (UTIs) caused by bacteria. 'Intravesical' means the antibiotic is given directly into the bladder (through a thin tube called a catheter) as a liquid, rather than as a tablet or intravenously (straight into your blood) via a drip.

What you need to know before you are given intravesical gentamicin

Before starting intravesical gentamicin, you will have given a urine sample to confirm that you have a UTI that will respond to gentamicin treatment.

You will **not** usually be given gentamicin if:

- You are allergic (hypersensitive) to gentamicin – signs of an allergic reaction include a rash, swallowing or breathing problems, swelling of your lips, face, throat and tongue.
- If you have myasthenia gravis. This is a disease that causes muscle weakness.

Talk to your doctor from the medical team looking after you as soon as possible, if you think you may have either of these.

Warnings and precautions:

Talk to your doctor or nurse **before** having gentamicin, if:

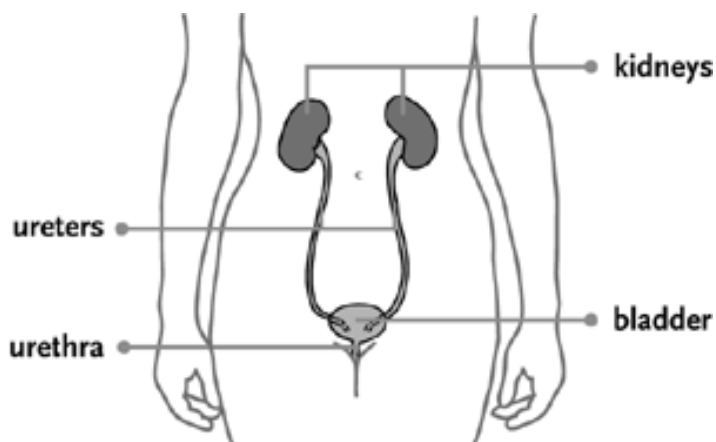
- You are pregnant, think you may be pregnant or are planning to have a baby.
- You are breastfeeding or are planning to breastfeed.
- You have any muscle weakness problems.
- You experience severe diarrhoea.
- You develop severe skin reactions. If you have symptoms of a severe skin reaction, contact your doctor immediately.
- You know (or think) you have a mitochondrial disease (changes in the parts of your cells that help make energy). Certain mitochondrial diseases may increase your risk of developing a hearing loss with this antibiotic.
- You have cystic fibrosis.

What are urinary tract infections?

The urinary tract is made up of the kidneys, bladder, ureters (tubes that link the kidneys to the bladder) and urethra (tube that carries urine out of the body). A UTI is a bacterial infection of the urinary tract. People with a UTI may have any of the following symptoms:

- Fever
- Vomiting
- Tiredness
- Irritability
- Loss of appetite
- Pain when passing urine
- Need to pass urine frequently
- Wetting (urinary incontinence)
- Tummy pain
- Pain in the side
- Unpleasant smelling urine
- Blood in the urine

Intravesical gentamicin is used to stop you getting UTIs when other treatments you have tried have not worked.



How long a course of treatment lasts

Intravesical gentamicin will usually be given for a course of 24-weeks as an outpatient in the Urology Department.

Side effects that may occur with intravesical gentamicin

Like all medicines, gentamicin can cause side effects, although these are very rare and not everybody gets them. Gentamicin is well-tolerated by most patients. However, a minority of patients will develop significant side effects. These include:

- Irritation of the bladder lining. If you notice any blood in your urine once starting treatment, you should contact the Urology Department (Hopkins Ward) immediately (telephone number at the end of this leaflet).
- Gentamicin entering the body from the bladder. Blood tests will be done to check for this.
- Gentamicin can affect the kidneys, so we will check how well your kidneys are working using regular blood tests. If there is a significant reduction in kidney function, the team may consider stopping gentamicin.
- Gentamicin can affect the inner ear, causing hearing and balance problems in some people. If you have a history of hearing loss or balance problems, or if any blood relatives have a history of this, please tell the doctor. If you notice your hearing has become worse, get tinnitus (ringing or buzzing that comes from inside your ears), find it hard to balance or have dizziness (vertigo),

please inform the Urology Department (Hopkins Ward) as soon as possible.

At your appointments we will do checks to see if you have any side effects but please tell us straight away if you notice any of the above symptoms.

Monitoring

Because gentamicin can affect hearing and balance and kidney function, it is very important to report any new symptoms to your doctor before, during or after your treatment. The team will check the levels of gentamicin in your blood regularly to ensure that the level is not too high. Your liver and kidney function and your blood count (the amounts and sizes of your red blood cells, haemoglobin, white blood cells and platelets) will all be checked regularly while you are on the course of gentamicin.

Special arrangements

The Urology team will arrange for you to have regular blood tests. It is essential that you attend these to ensure that you can continue the treatment and that it remains safe and effective.

What are the benefits of intravesical gentamicin?

Giving gentamicin into the bladder (intravesically) means that the antibiotic can go straight to the site of infection. It also helps prevent side effects, such as nausea and diarrhoea that can occur when antibiotics are given by mouth as a tablet or directly into the blood (via a drip). It also means you don't need to be admitted to hospital for intravenous antibiotics. And most importantly, it may also help reduce how often you get UTIs and the symptoms that they cause.

Are there any alternatives to intravesical gentamicin?

This treatment is used when antibiotic tablets and other conventional methods to prevent UTIs have failed or been ineffective over time. There are no other licensed alternative treatments currently available.

Treatment plan

The treatment is given once a day for two weeks, then every other day for 10 weeks, then twice a week for 12 weeks (24 weeks in total).

How often	How long for
Once a day	2 weeks, then
Once every other day	10 weeks, then
Twice a week	12 weeks

After the first treatment in Urology Outpatients, you will do the treatment yourself at home. You will also have regular outpatient follow-up appointments to check how you are and to have blood tests. The urology nurses will make sure you are confident with giving yourself the intravesical gentamicin, as you would have previously experienced giving yourself iAluril bladder instillations.

You will be given the gentamicin and all the equipment you need for treatment, including

dressing pack, urinary catheter, catheter tip adapter, 50mL luer lock syringe, green needle, sodium chloride 0.9% 50mL bags and sharps box for treatment.

Instructions

1. Wash your hands using soap and dry thoroughly on paper towel / kitchen roll (see hand-washing technique instructions at the end of this leaflet).
2. Apply alcohol hand rub (make sure you have some at home before treatment starts – available at local chemists and some supermarkets).
3. Open all sterile packages onto a clean tray.
4. Connect red filter needle to 50mL luer lock syringe and draw up the required volume of gentamicin from the vial.
5. Remove red needle from syringe and put the needle and vial in the sharps box.
6. Remove cap from sodium chloride 0.9% 50mL bag.
7. Attach green needle to syringe of gentamicin and inject into the tip of the sodium chloride 0.9% 50mL bag.
8. Put the green needle and syringe in the sharps box.
9. Clamp the sodium chloride 0.9% bag and mix the solution by gently shaking the bag.
10. If you do not have an indwelling catheter, insert catheter via the urethra.
11. If you have an indwelling catheter, ensure the flip-flow valve is attached to catheter and use alcohol wipe to clean valve.
12. Drain the bladder of urine until empty.
13. Draw the sodium chloride 0.9% bag into a syringe and inject into the bladder.
14. After a period of at least one hour (ideally the gentamicin is left in the bladder overnight or as long as you are able to hold it inside), empty your bladder by peeing into the toilet or using clean intermittent catheterisation (emptying the bladder using a catheter). Do not keep the gentamicin in your bladder for any longer than 8 hours.

Storage information

Gentamicin and all of the equipment you are given should be stored at room temperature, in a locked cupboard, away from children and pets.

Contacting us

If you have any further questions or need advice about your treatment, please contact Hopkins Ward on 0118 322 7771. The ward is located on Level 4 Eye Block, Royal Berkshire Hospital, Craven Road, Reading, RG1 5AN.

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

Written by: N Mahal, Lead Antimicrobial Pharmacist
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Hand washing technique with soap and water



Wet hands with water



Apply enough soap to cover all hand surfaces



Rub hands palm to palm



Rub back of each hand with palm of other hand with fingers interlaced



Rub palm to palm with fingers interlaced



Rub with back of fingers to opposing palms with fingers interlocked



Rub each thumb clasped in opposite hand using a rotational movement



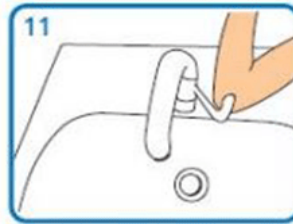
Rub tips of fingers in opposite palm in a circular motion



Rub each wrist with opposite hand



Rinse hands with water



Use elbow to turn off tap



Dry thoroughly with a single-use towel



Hand washing should take 15-30 seconds

