



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.
- You are pregnant, think you may be pregnant or are planning to have a baby.
- You are breastfeeding or are planning to breastfeed.

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:

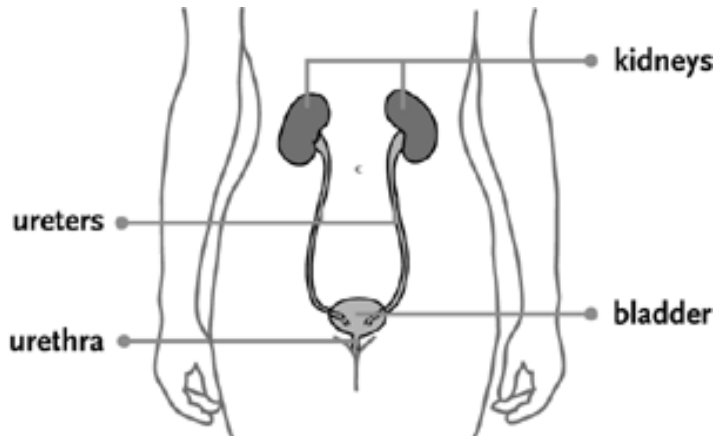
- You have any muscle weakness problems.
- You know (or think) you have a mitochondrial disease (changes in the parts of your cells that help make energy). Certain mitochondrial diseases may increase your risk of developing a hearing loss with this antibiotic.

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 Frederick Potts Unit.

Side effects that may occur with intravesical gentamicin

Like all medicines, gentamicin can cause side effects, although these are very rare and is usually well-tolerated. Furthermore, research shows that intravesical gentamicin is not usually absorbed into the rest of the body.

However, a minority of patients may 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 Frederick Potts Unit immediately (telephone number at the end of this leaflet).
- Gentamicin when absorbed can affect the kidneys, so we will check how well your kidneys are working by looking at your previous kidney and liver function test results before starting you on treatment
- Gentamicin when absorbed 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 Frederick Potts Unit 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

Before you are started on intravesical gentamicin treatment, the team will review your laboratory records to see your liver, kidney function and your blood count (the amounts and sizes of your red blood cells, haemoglobin, white blood cells and platelets) are not too high in the last 6 months before starting the treatment. If you do not have these results on your record, you will have your bloods taken and tested before treatment starts.

If you or your nurse has any concerns while you are having the treatment, you might be requested to have repeat blood tests to make sure your liver and kidney functions are still normal.

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 over an initial 24-week period, 3 times a week (Monday, Wednesday and Friday) for 12 weeks, then twice weekly for the next 12 weeks (total 24 weeks). After 24 weeks you will have a review with your consultant.

How often	How long for
Three times a week (Monday, Wednesday and Friday)	12 weeks

After the first treatment in the Frederick Potts Unit, you will self-administer the treatment yourself at home. You will also have regular outpatient follow-up appointments to check how you are and to collect materials for your next weeks of treatment. The urology nurses will make sure you are confident with giving yourself the intravesical gentamicin before you will be expected to do this and you will be given a leaflet with [step by step instructions](#) as a reminder.

You will be given a prescription to collect the gentamicin and urotrainer from the hospital pharmacy, and all the equipment you need for treatment will be given to you by the urology nurses. These include, 2/5ml syringes, blunt fill needles with filter, sharps box, intermittent catheters and some gloves.

Patients who find themselves unable to perform this procedure at home may instead follow a

structured regime within the Frederick Potts Unit. Under this arrangement, our specialist nurses will administer the treatment directly to the patient.

The schedule starts during the first month, with weekly appointments, transitioning to fortnightly sessions throughout the second and third months. To conclude the course, the frequency reduces to a single monthly visit spanning the fourth, fifth, and sixth months.

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. Screw the blunt fill needle with filter onto the syringe.
3. Using a tissue (optional), break open the 80mg vial of gentamicin at the snap point and draw up all of the solution into the syringe.
4. Twist off the used blunt fill needle with filter on your syringe and screw on a new needle.
5. Attach red needle to syringe of gentamicin and inject into the tip of the sodium chloride 0.9% 50mL bag (urotrainer).
6. Clamp the sodium chloride 0.9% bag and mix the solution by gently shaking the bag.
7. If you do not have an indwelling catheter, insert catheter via the urethra.
8. If you have an indwelling catheter, ensure the flip-flow valve is attached to catheter and use alcohol wipe to clean valve.
9. Drain the bladder of urine until empty.
10. Attach the urotrainer to the inserted catheter and administer entire content into bladder.
11. Place all used sharps (gentamicin vial and fill needles into the sharps bin. Used rubber gloves and syringe plastic parts can go in the normal waste.
12. After a period of at least 1 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 the Frederic Potts Unit on 0118 322 8629. The unit is located in the South Block car park, Royal Berkshire Hospital, Craven Road, Reading, RG1 5AN.

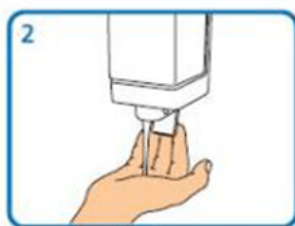
Please ask if you need this information in another language or format.

Written by: N Mahal, Lead Antimicrobial Pharmacist
RBFT Urology. Reviewed by SSN Olufunke Aderemi-Ishola, April 2026. Next review due: April 2028.

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



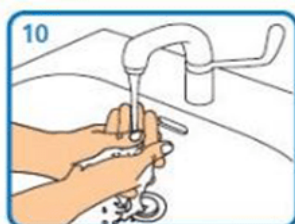
Rub each thumb clasped in opposite hand using a rotational movement



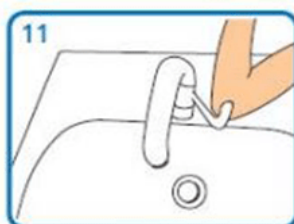
Rub tips of fingers in opposite palm in a circular motion



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

