Combination Mitomycin Hyperthermia and BCG Bladder Instillation Therapy

Department of Urology
Information for patients
Introduction

Your consultant has prescribed a course of treatment for you called bladder instillation therapy.

What is bladder instillation therapy?

This is a course of treatment used to treat cancerous cells inside your bladder.

You have been prescribed a six week course of treatment consisting of three hyperthermic mitomycin treatments and three BCG (Bacillus Calmette Guerin) treatments.

These drugs work in different ways to kill cancer cells. They are both given directly into your bladder using a catheter. They are not given into your bloodstream, so side effects are usually minimal.

What is mitomycin hyperthermia treatment?

Mitomycin is a drug that aims to treat non-muscle invasive bladder cancers and stop them from recurring and progressing into the deeper muscle layers of the bladder. Clinical trials have shown that warming the mitomycin makes it damage and kill cancer cells more effectively. This treatment is called Hyperthermic Intra-vesical Chemotherapy (HIVEC).

How is the mitomycin hyperthermia treatment given?

A catheter will be inserted into your bladder via your urethra (the passage that carries urine from your bladder). This is not painful, but you may have some discomfort. A lubricating gel containing local anaesthetic will be used to help ease the discomfort. The mitocycin will be drained into the bladder through this catheter.

The catheter will be attached to a warming machine and will be left in place for one hour. The machine will recirculate the mitomycin, ensuring that it is at the correct temperature.
How is the mitomycin given? (continued)

When the machine is first switched on, you will notice a warming feeling as the drug reaches its optimal temperature and you may feel the urge to pass urine. This feeling usually settles and, as you are catheterised, your urine will drain away through the catheter.

It is important that you stay relaxed and lie as flat and still as you can during the treatment.

After one hour, the fluid will be drained and the catheter will be removed.

What is BCG?

BCG is a drug that was originally developed as a vaccine, but was later discovered to be effective against superficial bladder tumours. It is not a chemotherapy drug. It works the way other vaccines work, by stimulating the body’s own immune system to fight the tumour. BCG causes an inflammatory response inside the bladder.

How is the BCG given?

BCG is given through a catheter, in the same way as mitomycin. BCG does not need to be heated and the catheter will be removed once the BCG has been drained into your bladder. You will need to hold the BCG in your bladder for two hours. After two hours you will be able to pass urine as usual.
Are there any side effects I need to be aware of?

The nurse carrying out your treatment will be there to support you and answer any questions you may have regarding your treatments. She/he will also provide advice and information on what side effects to expect following your treatment.

You may have the following bladder symptoms for up to 48 hours after treatment:

- Urgency - a need to pass urine urgently
- Frequency - a need to pass urine frequently
- pain, discomfort or stinging when you pass urine
- debris or blood in the urine

These symptoms are normal and usually resolve quickly. We advise you to drink one to two litres of water in the 24 hours after treatment in order to flush your bladder out. Caffeine (in tea, coffee and cola drinks) and alcohol are bladder irritants, so it may be best not to drink these. Paracetamol may help relieve some of your symptoms.

Side effects related to **BCG** include:

- flu-like symptoms
- raised temperature
- stomach upset or nausea (feeling sick)
- joint pain
- cough
- conjunctivitis (pink eye)

It is extremely rare to develop a serious reaction after BCG treatment.

Side effects related to **mitomycin** include:

Rash - usually a measles-type rash

Please contact us if you experience any of the above.
Side effects (continued)

If you continue to feel unwell after 48 hours and have a temperature above 39°C, you must ring us for advice. You may be asked to come to the hospital to be assessed, as you could be developing an infection or an allergic reaction.

Precautions after treatment

For the first six hours after each treatment you need to:

- wash your hands and genitals after passing urine
- sit down whilst passing urine, to avoid splashing
- put bleach down the toilet after passing urine, and let it stand for 30 minutes before flushing
- flush the toilet twice after use and then bleach the toilet
- avoid using creams or emollients that contain paraffin or steroids on your skin
- use condoms during sexual activity to prevent contamination of your partner for the first 24 hours.

Is there anything I should tell the nurse?

You need to inform your nurse if:

- your medications change or new ones are started during your course of treatment.
- you have recently had, or intend to have, the flu vaccine.
- you develop symptoms of a urinary tract infection (UTI), as you may require antibiotics to clear the infection before your next treatment can continue.
The following appointment dates have been arranged for you to attend for bladder instillation therapy.

Please ring the ward each week at 8am on the day of your treatment to confirm your attendance.

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On weeks 1, 2 and 6 you will receive BCG. On weeks 3, 4 and 5 you will receive mitomycin.

**What will happen when my course of treatments has finished?**

After your six week course of treatment has finished, you will receive an appointment through the post for you to have a check cystoscopy. This allows us to look inside your bladder and assess how effective your treatment has been. The cystoscopy will usually take place six to eight weeks after your last treatment, so that the bladder has time to settle from the effects of the chemicals. Biopsies may be taken during the cystoscopy.

The results of your cystoscopy will allow your doctor to decide if the treatment has been beneficial and whether you will be offered further courses of this treatment.
**Bladder instillation Nurse Specialist**  
(for issues related to treatment side effects)  
Day Case Unit  
Monday to Friday 7.30 am - 6.00 pm 0116 258 4191  
or  
Day Case Unit 1: 0116 258 4192  
Day Case unit 2: 0116 258 8130  

**Urology Oncology Nurse Specialists (key workers)**  
(for more general support relating to cancer)  
Monday to Friday 9.00 am - 5.00 pm 0116 258 4637  

**Urology Nurse Specialists**  
Monday to Friday 9.00 am - 5.00 pm 0116 258 4635  

**Outside these hours**  
Urology Emergency Admissions(24 hours) 0116 258 4247  

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**Questions I would like to ask**

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If you would like this information in another language or format, please contact the service equality manager on 0116 250 2959.