



York and Scarborough  
Teaching Hospitals  
NHS Foundation Trust

# Intravesical Chemotherapy

Your guide to receiving Mitomycin C

① For more information, please contact:

The Urology Team on 01904 725848

York Hospital, Wigginton Road, York, YO31 8HE  
Main Reception Telephone 01904 631313



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## **What is the evidence base for this information?**

This information includes advice from consensus panels, The British Association of Urological Surgeons, The Department of Health and other evidence based sources. It is therefore a reflection of best urological practice in the UK. It is intended to supplement any advice you may already have been given by your GP or other healthcare professionals. Alternative treatments are outlined below and can be discussed in more detail with your Consultant Urologist or Clinical Nurse Specialist.

## **What does the procedure involve?**

Instillation of Mitomycin C into the bladder for aggressive, multiple or recurrent superficial cancers of the bladder.

## **What are the alternatives to this procedure?**

Repeated cystoscopy, intravesical BCG therapy, radiotherapy, surgical removal of the bladder with urinary diversion or bladder reconstruction, systemic chemotherapy.

## **What are the benefits of the procedure?**

To treat bladder cancer, helping to discourage re-growth and/or changes to bladder cancer.

## **What should I expect before the procedure?**

Your Consultant Urologist has referred you for treatment of your superficial bladder cancer. Superficial bladder cancer affects a few layers of cells on the inner surface of the bladder only but has the ability to progress to more aggressive disease if not treated effectively.

The aim of the treatment, therefore, is to stop or slow down re-growth by instilling a drug into the bladder; this is called intravesical chemotherapy using a drug called Mitomycin C.

You will be asked to come to the hospital once a week for six weeks. You should limit your fluid input for six hours before each treatment.

Your first treatment will take up to 90 minutes. On arrival in the Day Unit, you will be asked to pass urine.

This urine sample will be tested to ensure that you do not have a urine infection. If you do, your treatment will need to be postponed for one week. You will be given a short course of antibiotics and asked to return the following week.

Like all powerful treatments, it comes with some possible side-effects (see below) and these should be considered against the risk of the bladder cancer for which the treatment is being given.

Please be sure to inform your Surgeon or Clinical Nurse Specialist in advance of your treatment if you have any of the following:

- An allergy to Mitomycin C
- An artificial heart valve
- A coronary artery stent
- A heart pacemaker or defibrillator
- An artificial joint
- An artificial blood vessel graft
- A neurosurgical shunt
- Any other implanted foreign body
- A regular prescription for a blood thinning drug (such as Warfarin, Clopidorgel, Apixaban, Rivaroxaban, Ticagrelor)
- A previous or current MRSA infection
- A high risk variant CJD (if you have received a corneal transplant, a neurosurgical dural transplant or previous injections of human-derived growth hormone)

When you attend for the first treatment, you will be asked to sign a consent form (reference FYCON116-3 'Course of Mitomycin C') giving permission for your treatment to take place, showing you understand what is to be done and confirming that you wish to proceed.

At this point you will be given the opportunity to discuss any concerns and to ask any questions that you may still have before signing the form. The form will be kept in your medical notes and you will be offered a copy for your own records.

## **What happens during the procedure?**

A fine plastic tube (called a catheter) will be passed into your bladder down the water pipe (urethra) and approximately half a cupful of the fluid (Mitomycin C) will be given through it. The catheter will then be removed. You will be asked not to pass urine for one hour to allow the medication to treat the bladder lining.

On your first visit, if you have not had Mitomycin C before, you will be asked to stay in the Day Unit for at least one hour and will be asked to pass urine before you go home. For the remaining treatments, if you live within 20 minutes of the hospital and have your own transport, you may go home with the medication in your bladder and pass urine after one hour. However, you must make sure that you pass urine in your own home and do not use public toilets on the way home.

# **What happens immediately after the procedure?**

In general terms, you should expect to be told how the procedure went and you should;

- Ask if the procedure went as planned
- Let the medical staff know if you are in any discomfort
- Ask what you can do and what you cannot do
- Feel free to ask any questions or discuss any concerns with the ward staff
- Ensure that you are clear about what has been done and what is the next move.



## **Post procedure advice:**

After the Mitomycin C has been held in the bladder for one hour you should pass urine into the toilet. Male patients should pass urine sitting down to reduce the risk of splashing and coming into contact with the drug.

Each time you pass urine for the next six hours the toilet should be flushed twice with the lid in the closed position.

Once the treatment has been completed, you will be able to go home.

To reduce the risk of soreness to the skin from the Mitomycin C please ensure that you wash your hands, and genital area, after voiding for the next few days.

You should drink plenty of fluids (two to three litres) for a few days after the treatment.

## **Are there any risks or side-effects?**

Most procedures have the potential for side-effects. You should be reassured that, although all these complications are well-recognised, the majority of patients do not suffer any problems after a urological procedure. The possible side effects are shown below, some are reversible, others are not.

### **Common (greater than 1 in 10):**

- Some bladder discomfort after treatment
- Flu-like symptoms which can persist for 2-3 days
- Blood in the urine
- Debris in the urine
- Discoloured urine
- Fatigue and tiredness
- Bladder irritation, frequency and urgency

### **Occasional (between 1 in 50 and 1 in 10):**

- Stricture (narrowing) of the urethra (water pipe) following repeated use of a catheter
- Skin rash and itching (usually affecting the hands and feet)

- Failure to complete the course of treatment due to bladder discomfort
- Urinary tract infection, requiring postponement of the next dose of Mitomycin C

### **Rare (less than 1 in 50):**

- Persistent or severe pain after treatment
- Allergic reaction to the instilled Mitomycin C chemical requiring discontinuation of the treatment
- Long-term shrinkage of your bladder with a reduction in your bladder capacity

### **Very rare (less than 1 in 10,000):**

- Low platelet and white cell counts in your blood results
- Nausea, vomiting and diarrhoea
- Hair loss
- Kidney failure and damage to kidney
- Bladder perforation

## **Frequency unknown:**

- Generalised infections including viral or fungal
- Facial flushing
- Altered blood results, including anaemia and risk of bleeding
- Weight loss and poor appetite
- Altered blood pressure
- Breathing difficulties, including coughing, fluid on the lungs and scarring
- Constipation
- Liver damage
- Redness and soreness to skin, formation of blistered areas
- Penile necrosis (damage and death of some tissue)
- High temperature

## **Hospital acquired infection**

- Colonisation with MRSA (0.9% or 1 in 110)
- Clostridium difficile bowel infection (0.01% or 1 in 10,000)
- MRSA bloodstream infection (0.02% or 1 in 5,000)

The rates for hospital acquired infection may be greater in high risk patients e.g. those with long term drainage tubes, after removal of the bladder for cancer, after previous infections, after prolonged hospitalisation or after multiple admissions.

## **What should I expect when I get home?**

By the time of your discharge from hospital, you should:

- Be given advice about your recovery at home
- Ask when to resume normal activities such as work, exercise, housework and sexual intimacy
- Ask for a contact number if you have any concerns once you return home
- Ask when your follow-up will be and who will do this (the hospital or your GP)

If you think you have a urine infection (i.e. pain on passing urine, urine frequency or foul smelling urine) or if you develop a high temperature with backache, it is important to contact your GP and get treatment with antibiotics.

## **What else should I look out for?**

Because this treatment is put directly into your bladder and not into your bloodstream, you should not experience the side-effects often associated with other cancer drug treatments.

## **Are there any other important points?**

You should wash your hands and genitals after you have passed urine and it is advisable to bring a wash bag with you when you come to hospital for the treatment.

You are advised not to have sexual intercourse for at least 24 hours after the treatment as this can cause some discomfort. For the duration of your treatment course and for one week after the course, you should use a condom during sexual intercourse.

If you are a smoker, you should be aware that smoking seems to encourage recurrence of bladder cancer.

## **Driving after treatment**

It is your responsibility to ensure that you are fit to drive following your treatment. You do not normally need to notify the DVLA unless you have a medical condition that will last for longer than three months after treatment and may affect your ability to drive. You should however, check with your insurance company before returning to driving. Your doctors will be happy to provide you with advice on request.

## **What happens when my course of treatment is finished?**

Following your final treatment you will receive an appointment for bladder examination called a cystoscopy. This will be usually six to eight weeks after your final Mitomycin C treatment. The cystoscopy allows the consultant to monitor your bladder's response to the treatment.

## **Special instructions for patients with indwelling catheters**

When you attend the Day Unit for your treatment the nurse will take a sample of urine from your catheter. If your urine is clear the drug will be placed into your bladder via your catheter. The catheter will then be clamped or a small bung called a spigot placed in the catheter to prevent the drug from draining out.

You must stay with us for the full hour each time you come for treatment. When the drug has been in your bladder for the required time the nurse will release the clamp or spigot. This is to allow the drug to drain into your catheter bag.

After a short while, when the nurse is sure that the entire drug has drained from your bladder, they will remove your catheter bag and replace it with a new one. Always wash your hands after handling your catheter.

## **What will happen if I have a urine infection?**

Each week when you come for treatment the nurse will test a sample of your urine. If it shows signs of an infection you cannot have your treatment that week. The nurse will arrange for you to have a course of antibiotics and will send a sample of your urine to the laboratory for testing.

You will return to the Day Unit the following week for your treatment. The nurse will make you another appointment to replace the one that you have missed. This is to ensure you receive the complete course of Mitomycin C.

If you develop symptoms of a urine infection when at home, please contact your GP, or NHS 111 out-of-hours, as this may require treatment with antibiotics. Once you have seen your GP please contact your Urology Nurse Specialist to update them.



## **Frequently asked questions**

### **Can I continue to work whilst receiving treatment?**

You should take the remainder of the day off work after each treatment. This is because of the precautions disposing of your urine. If you feel well enough you may return to work the next day. However, if you experience any of the side-effects please take things easy and rest.

### **Can I drink alcohol during my treatment?**

It is not known whether drinking alcohol has any effect on Mitomycin C. However, it is recommended that you drink alcohol in moderation whilst having treatment.

### **Is it safe to have Mitomycin C treatment while breastfeeding, or pregnant?**

No. Breastfeeding is not recommended whilst you are receiving a course of Mitomycin C treatment, and it is also not recommended to have Mitomycin C while you are pregnant or trying to get pregnant within in the next six months.

### **Can I have my yearly 'flu jab whilst I am having my bladder treatment?**

Yes.

## **Can I have sex during my treatment?**

Yes. Men should wear a condom during sex whilst they are receiving a course of treatment and for one week following treatment.

Women undergoing treatment should avoid having sex the night of their treatment. They need to ensure that the area has been thoroughly washed to remove any traces of Mitomycin C.

Women should use an effective contraception for the whole duration of the treatment and for a number of months afterwards to avoid pregnancy.

## **Can I dye my hair while having Mitomycin C treatment?**

As Mitomycin C treatment is administered into your bladder, it is unlikely that it will affect the health of your hair. However, in rare cases small amounts of the Mitomycin C treatment are absorbed into your body. Therefore, it is recommended to avoid the use of harsh hair dyes or chemicals during the treatment, and for six months after completing the treatment.

## **Contact telephone numbers**

|                             |              |
|-----------------------------|--------------|
| Hospital Day Unit           | 01904 726010 |
| Extended Stay Area (ESA)    | 01904 721265 |
| Clinical Nurse Specialists  | 01904 725848 |
| Urology Cancer Co-ordinator | 01904 725848 |

## **Tell us what you think of this leaflet**

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact:

The Urology Clinical Nurse Specialists, The York Hospital, Wigginton Road, York YO31 8HE or telephone 01904 725848.

## **Teaching, training and research**

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

## **Patient Advice and Liaison Service (PALS)**

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email [yhs-tr.patientexperienceteam@nhs.net](mailto:yhs-tr.patientexperienceteam@nhs.net).

An answer phone is available out of hours.

# Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

Patient Information Leaflets can be accessed via the Trust's Patient Information Leaflet website:

[www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/](http://www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/)

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