Mitomycin-C treatment for non-muscle invasive bladder cancer

This leaflet explains more about the use of Mitomycin-C to treat your non-muscle invasive bladder cancer. Sometimes this type of cancer is known as superficial bladder cancer. If you have any questions or concerns, please speak to a doctor or nurse caring for you.

Why do I need Mitomycin-C treatment?
You have or have had non-muscle invasive bladder cancer, which is the most common type of bladder cancer. When you have a cystoscopy (procedure to look into your bladder), non-muscle invasive bladder tumours are usually visible, sitting on the innermost lining of the bladder.

You have already had a procedure (transurethral resection of bladder tumour or TURBT) to remove the tumour(s) from your bladder. You will now have a regular cystoscopy to check for any tumour recurrence. After each check cystoscopy, your doctor will tell you if your tumour(s) have returned. Although non-muscle invasive bladder tumours can mostly be dealt with by surgery alone, your surgeon may want you to have an additional form of treatment.

Your doctor has recommended that you have intravesical (within the bladder) chemotherapy. This treatment involves placing a substance called Mitomycin-C, directly into your bladder. This substance is designed to stop the cancer cells from growing.

Intravesical chemotherapy is used to reduce the frequency of or prevent the tumour(s) from returning. If you decide to have this treatment, you will receive it as an outpatient in a nurse-run clinic. This means you will not see a doctor on these visits.

What is Mitomycin-C?
Mitomycin-C is a purple-coloured solution that can destroy cells. It attacks cancerous cells when put into the bladder but does little damage to your normal, healthy bladder lining. It is a chemotherapy drug, but because it is put straight into your bladder and not injected into your veins, you will not get the side effects people often associate with chemotherapy, such as hair loss, nausea and vomiting.

How is Mitomycin-C treatment given?
Mitomycin-C is inserted directly into your bladder through a fine tube (catheter) to treat the entire lining of your bladder. The treatment usually involves coming to hospital once a week for six weeks as an outpatient. The drug itself stays in your bladder for up to one hour and is then taken out through the catheter, or drains from your bladder when you pass urine.
For your first treatment, please expect to stay in the outpatient department for one or two hours. On following visits, you may be able to go straight home after the drug has been put into your bladder.

When your condition was first diagnosed, your doctor may have decided to give you a single dose of Mitomycin-C either one hour before your surgery or within six hours of you having TURBT surgery. This is a one-off, additional form of treatment, which your doctor will have discussed with you before your surgery.

**What are the alternatives?**

An alternative treatment is intravesical immunotherapy. This involves a similar procedure to Mitomycin-C, where a substance called BCG (Bacillus Calmette Guerin) is introduced into your bladder. This substance can destroy cancer cells by stimulating the immune system to become active in the bladder. This treatment aims to kill off any cancer cells that might be growing back or that have been left within the bladder lining.

**What are the side effects?**

Most patients do not experience any major problems with this treatment, but it may irritate your bladder. You may find that you:

- have discomfort when passing urine
- need to pass urine frequently
- have blood in your urine.

We would expect these symptoms after the operation. **If your symptoms do not improve after three to four days, contact the ward or your nurse specialist for advice (contact details can be found at the end of this leaflet).**

To help prevent these problems, it is a good idea to increase your fluid intake for a couple of days after the procedure. You may want to reduce the amount you drink after 8pm so you don’t disturb your sleep.

Very rarely, you may notice a rash on the soles of your feet and/or the palms of your hands or the trunk of your body. It may be a sensitivity (allergic) reaction, but if it happens, it is most likely to occur during your admission. If this happens, contact your nurse specialist for advice.

If you notice that your urine is smelly or cloudy you should contact your GP as this may indicate a urine infection. You will need to give a urine sample and you may possibly need antibiotics. This is unlikely to be due to the Mitomycin-C, but can happen after catheterisation. **Please tell your nurse specialist of any side effects you have** at the time of your next visit or by telephone.

To prevent irritation for yourself or your partner, it is best not to have sexual intercourse for at least 24 hours after each treatment with Mitomycin-C. We do not recommend getting pregnant or fathering children during and for six months after Mitomycin-C treatment, so it is essential that adequate contraceptive measures are used. If you are considering pregnancy or fathering children please discuss this further with us.
Giving my consent (permission)
We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

What do I have to do before each treatment?
Before each treatment, you will be asked to pass urine to empty your bladder. You should try not to drink very much for four hours before you come to the hospital for your Mitomycin-C treatment, particularly if you tend to pass urine frequently. By restricting the amount you drink, your urine will be concentrated, preventing the Mitomycin-C from being diluted while it is in your bladder. You are also more likely to be able to hold onto the drug in your bladder for the full hour if you have not had much to drink beforehand.

When you come in for your appointment, you will have to give a urine sample before your treatment. This is because you cannot be given Mitomycin-C if you have a urinary tract infection (UTI) or blood visible in your urine. You will need to have the UTI treated or wait until the bleeding has stopped before your Mitomycin-C treatment can be re-started.

What happens during each treatment?
A catheter is inserted into your urethra (tube linked to the bladder that allows urine to exit the body) with a lubricating gel, to reduce any discomfort. Any remaining urine is drained away from your bladder and about 40mls of Mitomycin-C solution is passed through the catheter and into your bladder. This catheter is then either removed from your bladder or left in place until the treatment is finished. To keep the drug in contact with your bladder, you will be asked not to pass urine for an hour.

After one hour the Mitomycin-C will be removed, via the catheter if this is still in place or you will be asked to pass urine as normal into a toilet. Men will be asked to sit down to avoid the drug splashing onto the skin. The first time you pass urine after having each Mitomycin-C treatment you will need to put 50ml of household bleach into the toilet before flushing and leave it to stand for 15 minutes. This neutralises the drug.

What do I do after each treatment?
It is important to avoid getting the Mitomycin-C in contact with your skin, so please wash your hands and genitalia (male/female reproductive organs) with soap and water immediately after passing the drug into the toilet. If the solution does get on your skin it may cause a slight rash if not washed off. If you wash it off immediately with warm, soapy water, it will not harm your skin.

Find out the success of your treatment
A check cystoscopy is performed under general anaesthetic six to eight weeks after completing the course of Mitomycin-C to find out how successful the treatment has been. You will be sent an appointment for this in the post or your nurse may confirm this date on your last treatment visit. You will also need to provide a urine sample for the urology department at Guy’s hospital two weeks before your cystoscopy check.

It is important to remember that your tumour(s) may return. If this happens you may be given further courses of treatment to your bladder to prevent the progression of your tumour(s). Your doctor will discuss this with you in more detail if relevant.
Contact us
If you have any questions or concerns, please contact the urology department for advice. Ring **020 7188 7636** to speak to one of the nurses below or leave a message on the answering machine (Monday to Friday, 9am to 5pm).

Alternatively ring **020 7188 3026** and ask the operator to bleep:
- 2840 to speak to Sue Amery, Bladder Cancer Clinical Nurse Specialist, or
- 1227 to speak to Kathryn Chatterton, Bladder Cancer Clinical Nurse Specialist.

Outside of normal working hours, please call Aston Key Ward on **020 7188 8860** or Florence Ward on **020 7188 8818**.

Guy’s and St Thomas’ hospitals offer a range of cancer-related information leaflets for patients and carers, available at www.guysandstthomas.nhs.uk/cancer-leaflets. For information leaflets on other conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets

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**Pharmacy Medicines Helpline**
If you have any questions or concerns about your medicines, please speak to the clinical nurse specialist or other member of staff caring for you or call our helpline.
**t:** 020 7188 8748 **9am to 5pm, Monday to Friday**

**Your comments and concerns**
For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.
**t:** 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk
**t:** 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

**Language and Accessible Support Services**
If you need an interpreter or information about your care in a different language or format, please get in touch:
**t:** 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

**NHS Choices**
Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.
**w:** www.nhs.uk