

Electromotive drug administration of Mitomycin-C for non-muscle invasive bladder cancer

This information sheet explains the use of electromotive drug administration (EMDA) of Mitomycin-C to treat your non-muscle invasive bladder cancer (NMIBC). Sometimes this type of cancer is known as superficial bladder cancer. If you have any questions or concerns after reading this leaflet, please feel free to ask your nurse, who will be happy to help you.

Why do I need EMDA Mitomycin-C treatment?

You have, or have had, non-muscle invasive bladder cancer (NMIBC), 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 continue to have regular cystoscopies to check for any tumour recurrence. Although non-muscle invasive bladder tumours can mostly be dealt with by surgery alone, an additional form of treatment may be recommended.

Your doctor has suggested that you have intravesical chemotherapy using EMDA. This treatment involves placing a substance called Mitomycin-C directly into your bladder. Mitomycin-C is designed to stop the cancer cells from growing, and the use of EMDA will mean that more of the drug can be delivered more efficiently.

Intravesical chemotherapy is used to reduce the frequency of, or to prevent the tumour(s) from returning. If you decide to have this treatment, you will receive it during your hospital appointments 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 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 EMDA 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 EMDA uses an electrical current which helps to improve the absorption of the Mitomycin-C, as described in **'What happens at each treatment?'** below.

To receive the treatment, you will need to come for your hospital appointments once a week for six weeks. The treatment usually lasts 25 to 30 minutes but your overall visit will last about an hour or slightly longer.

Your doctor may have decided to give you a dose of EMDA Mitomycin-C before your TURBT surgery, OR a dose of Mitomycin-C (without using EMDA) within six hours of having your TURBT surgery. These are one-off, additional forms of treatment, which your doctor will have discussed with you at the time of your initial cystoscopy or surgery.

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 three or four hours before you come to the hospital for your treatment, particularly if you tend to pass urine frequently. Restricting the amount you drink will mean that you produce less urine. This will prevent the Mitomycin-C from being diluted while it is in your bladder and maximise the drug's effectiveness. You will also be more likely to hold onto the drug in your bladder for the full treatment time.

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 EMDA Mitomycin-C treatment can be re-started.

What happens at each treatment?

We will ask you to lie down on a couch in a treatment room. A catheter containing an electrode will be inserted into your urethra (tube linked to the bladder that allows urine to exit the body) with a local anaesthetic gel, to reduce any discomfort. Any remaining urine will be drained away from your bladder and two electrode pads placed on the skin of your lower abdomen.

When the catheter and electrodes are in place, 40ml of Mitomycin-C solution will be passed through the catheter and into your bladder along with 60ml of sterile water. The catheter and electrodes will then be connected to a generator that delivers a controlled electric current between the electrodes. This can cause a tingling or stinging sensation where the electrode pads are placed on the skin. The catheter and electrodes will be left in place for the whole time that the drug is in your bladder. To keep the drug in contact with your bladder, you will be asked not to pass urine for half an hour.

After the treatment, the bladder will be drained and the catheter and electrodes removed.

Is there anything I need to watch out for after each treatment?

It is important to avoid getting the Mitomycin-C in contact with your skin as it may cause a slight rash. If the solution does get on your skin, wash it off immediately with warm, soapy water to prevent any harm to your skin.

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 destroy any cancer cells that might be growing back or that have been left within the bladder lining.

Other alternatives include using a combination of EMDA Mitomycin-C and BCG, or giving Mitomycin-C passively (without using EMDA).

Consent - asking for your consent

We want to involve you in all the decisions about your care and treatment. If you decide to go ahead, you will be asked to verbally give your consent that you agree to have the procedure and understand what it involves. If you would like more information about our consent process, please speak to a member of staff caring for you.

What are the side effects?

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

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

These problems will either get better within a few days or you may need minor treatment to clear them up. **If your symptoms do not improve after two to three days, contact your nurse specialist for advice (contact details are on page 4 of this leaflet).** To help prevent these problems, it is a good idea to drink more fluids for a couple of days after each treatment. This will help to flush any remaining drug from your bladder. However, you may want to reduce the amount you drink after 8pm so that you do not disturb your sleep.

There is also a small risk of burns occurring where the electrode pads are placed on the skin. We try to avoid air bubbles between the electrodes and the skin to keep the risk to a minimum.

Vary 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. If this happens, contact your nurse specialist for advice or seek medical attention. This may suggest an allergic reaction and may mean that the treatment will need to be stopped.

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 having a catheter inserted. Please tell your nurse specialist about any side effects you have.

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 six months after mitomycin treatment so it is essential that

adequate contraceptive measures are used. If you are considering pregnancy or fathering children then please discuss this further with us.

Finding out the outcome of your treatment

A check cystoscopy is performed under general anaesthetic six to eight weeks after completing the course of EMDA 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 will confirm the date with you on your last treatment visit. You will also need to provide a urine sample to the urology department at Guy's Hospital two weeks before your check cystoscopy.

It is important to remember that your tumour(s) may return. If this happens, you can 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 about EMDA Mitomycin-C, please contact the Urology Department on **020 7188 7636** (Monday to Friday, 9am to 5pm).

You can also bleep a bladder cancer clinical nurse specialist. To do this, call the hospital switchboard on **020 7188 3026** and ask for the bleep desk. Ask for bleep **2840** or **1227** and wait for a response. This will connect you to the clinical nurse specialist directly.

Out of hours, please contact Aston Key ward on **020 7188 8860** or Florence ward on **020 7188 8818**.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the 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 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

t: 111

Leaflet number: 3374/VER3

Date published: June 2017

Review date: June 2020