This leaflet contains evidence-based information about your proposed urological procedure. We have consulted specialist surgeons during its preparation, so that it represents best practice in UK urology. You should use it in addition to any advice already given to you.

To view the online version of this leaflet, type the text below into your web browser:

**Key Points**

- This involves having a catheter (plastic tube) passed into your bladder to instil an anti-cancer drug
- We use it for non-muscle invasive cancers, which grow in the thin layer of cells lining the bladder but do not extend into the muscle of the bladder wall
- It usually involves weekly treatment for 6 weeks, followed by maintenance treatments every 4 weeks for up to one year
- Treatment reduces the chance of your bladder cancer returning
- Bladder tumours can recur during or after treatment, so follow-up bladder examinations (cystoscopies) are needed

**What does this procedure involve?**

Instillation of an anti-cancer drug (usually Mitomycin C or Epirubicin) into your bladder, through a catheter (pictured), for aggressive, multiple or recurrent non-muscle invasive cancer of the bladder.

**What are the alternatives?**

- **Repeated cystoscopy** – with biopsy and electrical or laser cauterisation of any tumours found
- **Intravesical immunotherapy** – instillation of BCG (an inactivated strain of tuberculosis bacteria) into the bladder
- **Surgical removal of the bladder (radical cystectomy)** - with urinary diversion or bladder reconstruction
What happens on the day of the procedure?
On arrival in the clinic, you will be asked to pass urine which we will test for infection. If an infection is suspected, we will send a sample to the laboratory and, depending on your symptoms, your procedure may be postponed whilst you take a course of antibiotics.

If you urine is clear, your urologist (or a member of their team) will briefly review your history and medications, and will discuss the procedure again with you to confirm your consent.

You should allow approximately 90 minutes for your first treatment.

Details of the procedure
- we clean your genital area with an antiseptic solution and squirt an antiseptic gel, containing local anaesthetic, into your urethra (waterpipe)
- we then pass a small catheter into your bladder (pictured)
- we put approximately half a cup full of the anti-cancer drug (normally Mitomycin C or Epirubicin) into your bladder through the catheter
- we remove the catheter
- we ask that you try not to pass urine for the next hour, to allow the drug to treat the whole bladder lining
- on your first visit, we normally keep you in the clinic until you have passed urine but, for any remaining treatments, you can normally leave after one hour and pass urine at home
- there is no risk of contamination with the anti-cancer drug when you get home
- you should drink plenty of fluids (two to three litres) for the first few days after the treatment
- we usually repeat the procedure every week for 6 weeks; the urology staff will advise you about the need for any further, maintenance treatments

Are there any after-effects?
The possible after-effects and your risk of getting them are shown below. Some are self-limiting or reversible, but others are not. We have not listed
very rare after-effects (occurring in less than 1 in 250 patients) individually. The impact of these after-effects can vary a lot from patient to patient; you should ask your surgeon’s advice about the risks and their impact on you as an individual:

<table>
<thead>
<tr>
<th>After-effect</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some degree of bladder discomfort after the treatment</td>
<td>Between 1 in 2 &amp; 1 in 10 patients</td>
</tr>
<tr>
<td>Flu-like symptoms which can continue for two or three days</td>
<td>Between 1 in 2 &amp; 1 in 10 patients</td>
</tr>
<tr>
<td>Discolouration of your urine</td>
<td>Between 1 in 2 &amp; 1 in 10 patients</td>
</tr>
<tr>
<td>Blood in your urine</td>
<td>Between 1 in 2 &amp; 1 in 10 patients</td>
</tr>
<tr>
<td>Debris in your urine</td>
<td>Between 1 in 2 &amp; 1 in 10 patients</td>
</tr>
<tr>
<td>A skin rash</td>
<td>Between 1 in 10 &amp; 1 in 50 patients</td>
</tr>
<tr>
<td>Failure to complete the course of treatment because of bladder discomfort</td>
<td>Between 1 in 10 &amp; 1 in 50 patients</td>
</tr>
<tr>
<td>Infection in your urine</td>
<td>Between 1 in 10 &amp; 1 in 50 patients</td>
</tr>
<tr>
<td>Stricture (narrowing) of the urethra (water pipe) following repeated use of a catheter</td>
<td>Between 1 in 10 &amp; 1 in 50 patients</td>
</tr>
<tr>
<td>Severe pain on instillation which persists after you have emptied your bladder</td>
<td>Between 1 in 50 &amp; 1 in 250 patients</td>
</tr>
</tbody>
</table>
What can I expect when I get home?

- a copy of your treatment details will be sent to your GP
- any antibiotics or other tablets you may need will be arranged & dispensed, either from the hospital pharmacy or by your GP
- you should always wash your hands and genitals every time you pass urine over the next few days (we also suggest that you bring a washbag with you every time you come to the hospital for treatment)
- you should not have sex for at least 24 hours after the treatment, because you may find it quite uncomfortable
- there is no risk of contamination with the drug when you get home
- if you are a smoker, you should try to stop because smoking can encourage the return of bladder cancer (see below)

General information about surgical procedures

**Before your procedure**

Please tell a member of the medical team if you have:

- an implanted foreign body (stent, joint replacement, pacemaker, heart valve, blood vessel graft);
- a regular prescription for a blood thinning agent (e.g. warfarin, aspirin, clopidogrel, rivaroxaban, dabigatran);
- a present or previous MRSA infection; or
- a high risk of variant-CJD (e.g. if you have had a corneal transplant, a neurosurgical dural transplant or human growth hormone treatment).

**Questions you may wish to ask**

If you wish to learn more about what will happen, you can find a list of suggested questions called "Having An Operation" on the website of the Royal College of Surgeons of England. You may also wish to ask your surgeon for his/her personal results and experience with this procedure.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>An allergic reaction to the instilled drug, resulting in you having to stop the treatment</td>
<td>Between 1 in 50 &amp; 1 in 250 patients</td>
</tr>
<tr>
<td>Long-term shrinkage of the bladder with a reduction in your bladder capacity</td>
<td>Between 1 in 50 &amp; 1 in 250 patients</td>
</tr>
</tbody>
</table>
**Before you go home**
We will give you advice about what to look out for when you get home. Your surgeon or nurse will also give you details of who to contact, and how to contact them, in the event of problems.

**Smoking and surgery**
Since you are only having a local anaesthetic, stopping smoking will have no effect on this procedure. Smoking can, however, cause cancers of the urinary tract and cause existing cancers to recur or progress. We strongly advise anyone with bladder cancer to stop smoking. For advice on stopping, you can:

- contact your GP;
- access your local [NHS Smoking Help Online](https://www.nhs.uk/smokingstopping); or
- ring the free NHS Smoking Helpline on **0300 123 1044**.

**Driving after any procedure**
It is your responsibility to make sure you are fit to drive even after a minor surgical procedure. You only need to contact the DVLA if your ability to drive is likely to be affected for more than three months. If it is, you should check with your insurance company before driving again.

**What should I do with this information?**
Thank you for taking the trouble to read this information. Please let your urologist (or specialist nurse) know if you would like to have a copy for your own records. If you wish, the medical or nursing staff can also arrange to file a copy in your hospital notes.

**What sources have we used to prepare this leaflet?**
This leaflet uses information from consensus panels and other evidence-based sources including:

- the [Department of Health (England)](https://www.gov.uk);
- the [Cochrane Collaboration](https://www.cochrane.org); and

It also follows style guidelines from:

- the [Royal National Institute for Blind People (RNIB)](https://www.rnib.org.uk);
- the [Information Standard](https://www.information-standard.nhs.uk);
- the [Patient Information Forum](https://www.patientinformationforum.org); and
- the [Plain English Campaign](https://www.plainenglish.org).
Disclaimer
We have made every effort to give accurate information but there may still be errors or omissions in this leaflet. BAUS cannot accept responsibility for any loss from action taken (or not taken) as a result of this information.

PLEASE NOTE
The staff at BAUS are not medically trained, and are unable to answer questions about the information provided in this leaflet. If you do have any questions, you should contact your urologist, specialist nurse or GP.