

# Intravesical BCG Immunotherapy

## Patient Information – Urology Service

### What is BCG?

Bacillus Calmette-Guérin (BCG) is made from a strain of bacteria that was originally used to make a vaccine to prevent tuberculosis. It is the most common treatment for non-muscle invasive bladder cancer (NMIBC).

It is used to cause an inflammatory response in the bladder, which in turn stimulates a person's own immune system to help destroy the cancer cells and prevent it from becoming invasive.

### When is it done?

BCG immunotherapy is usually given a few weeks after you have recovered from your transurethral resection of bladder tumour (TURBT). The combination of BCG and TURBT remains the most effective treatment for early stage bladder cancer.

The treatment consists of an induction course of weekly BCG instillations over a period of six weeks. Following the induction course, there may be a maintenance therapy prescribed. This is a three-week course, every six months that may continue for up to three years. You will also have your regular flexible cystoscopy (camera into the bladder) procedures, and your urologist may also recommend urine tests and CT scans at intervals as part of your surveillance.

### How is the procedure performed?

With intravesical therapy, the medication gets put directly into your bladder. You will be lying down and the nurse will insert a flexible thin plastic tube (catheter) into your bladder through your urethra (tube from the bladder that empties the urine).

Once urine has been drained from your bladder, approximately 50 mL of the BCG solution is then put directly into your bladder through the catheter. You can go home as soon as the BCG is given, but you will be asked not to pass urine for two hours to try to keep the drug in contact with your bladder.

### What happens before my procedure?

Before you start this treatment it is important that you tell your doctor or nurse if you suffer from an impaired immune system, are taking any drugs that suppress the immune system, or if you have a history of tuberculosis. You should **not** receive BCG therapy if you have blood in your urine, have a urinary tract infection, are on antibiotics, or are having radiation therapy.

Prior to the BCG treatment, your doctor or nurse will give you a list of specific guidelines to help you prepare. In general, you should try and limit your fluid intake for four hours before the procedure. Avoid caffeinated beverages and diuretics (water pills) before your appointment. This is important so as not to dilute the BCG concentration and to make it easier for you to hold the BCG in your bladder for the required time.

## What to expect after my procedure?

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The drug used for BCG treatment contains live attenuated bacteria, which can be passed on to other people. To reduce the risk of contamination, **please follow these instructions for six hours following every BCG treatment:**

- Avoid using public toilets as much as possible.
- Drink plenty of fluids (unless you have been told not to) in order to flush out the rest of the medication in your bladder. Start this following the first time you empty your bladder.
- Men should **urinate sitting down** to avoid splashing.
- After urinating, add two cups of undiluted bleach to the toilet, close the lid and wait 15 minutes before flushing.
- If any clothing is splashed with urine, wash your clothes separately in bleach and warm water.
- If you wear an incontinence pad, place it in a plastic bag before discarding it in your rubbish bin.
- Wash your hands thoroughly with soap and water after going to the toilet, and if your skin comes in contact with urine.
- To protect your partner from transmission of the BCG, we recommend to either refrain from sexual intercourse for one week after the treatment, or to use a condom.
- Women should avoid getting pregnant or breastfeeding while on BCG therapy.

## Possible complications

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Some unpleasant side effects can occur following BCG treatment. In most cases, they are temporary and manageable. Most of the reactions are related to irritation of the bladder, but they may affect the whole body. The symptoms typically begin four to six hours after treatment and may last a day or two, and sometimes up to one week.

The most common side effects include:

- Flu-like symptoms, such as mild fever, chills, muscle aches, headaches and fatigue
- Discomfort or a burning sensation with urination
- Passing urine more frequently and more urgently than usual
- Traces of blood or debris in the urine

To cope with these side effects, it is important for you to drink lots of fluids and get some rest. You can also take over-the-counter pain relief to reduce fever and ease your discomfort. In case your

symptoms are severe or if they do not disappear within a few days, please contact your GP to check that you have not developed a urine infection.

Please visit an After Hours or Urgent Care centre, or the Emergency Department at your local hospital, if you experience any of the following symptoms:

- Any sign of an allergic reaction, which includes difficulty breathing, shortness of breath, wheezing, rash or hives and/or swelling of the face.
- If you develop flu-like symptoms, such as fever over 38°C that lasts longer than 48 hours, pain in your joints, a cough, a skin rash, or yellow discolouration of skin/eyes (jaundice).

It is rare, but BCG can spread through the body and cause a serious infection. It is important that you notify your nurse before the next treatment of any symptoms you may have experienced. It is possible that they require your treatment to be postponed. Further examination or treatment may be necessary before the instillations are continued.

## Contact information

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If you have any concerns about having this treatment or have any questions about the procedure, please call our Clinical Nurse Specialist on (03) 378 6296.

For more information about:

- Hospital and Specialist Services, go to [www.cdhb.health.nz](http://www.cdhb.health.nz)
- Your health and medication, go to [www.healthinfo.org.nz](http://www.healthinfo.org.nz)

For information on parking, how to get to the hospital, and visiting hours, please visit [www.cdhb.health.nz](http://www.cdhb.health.nz)