

# **Patient's Guide to Bladder Instillation for treatment of Bladder Cancer**

## **Overview**

Your doctor has recently diagnosed a type of cancer called superficial bladder cancer. There are several different types of bladder cancer. Most bladder cancers (85-90%) are limited to the lining of the bladder and are called superficial bladder cancer. The good news about superficial bladder cancer is that although this is a type of cancer, superficial cancers are not malignant, life-threatening cancers and do not require major surgery. Most superficial bladder cancers are easily treated by scraping out the cancer from inside the bladder. Some patients will have an early form of serious bladder cancer called carcinoma-in-situ (CIS). Carcinoma-in-situ can turn into a life-threatening malignant cancer if untreated, but most patients can be treated with medication placed into the bladder. Only a small number of patients (15%) will have a malignant form of bladder cancer that requires surgery, radiation, or chemotherapy.

The bad news about superficial bladder cancer is that the tumors will recur in 70% of patients if no other treatment is given. For that reason, your doctor may recommend a series of bladder instillations of medication to try to prevent recurrence of the cancer. There are several different medications which can be used. Some are a type of chemotherapy, which kill the cancer cells by direct contact. Because the chemotherapy is given into the bladder and not into your blood, patients do not experience the serious side-effects of chemotherapy which you may have heard about. Other medications work to prevent bladder cancer by stimulating your body's own immune system to fight off cancer cells. The most common of this type of medication is called BCG. BCG is actually a weakened form of a bacteria which is similar to tuberculosis. It is used in Europe and other parts of the world as a vaccine against tuberculosis and is a potent stimulant of the immune system. Your doctor will decide which of these medications is best for your particular case based on your medical condition and the type of bladder cancer that you have.

In most cases the bladder instillation is given in a series of weekly instillations for 6-8 weeks. You will come to the office, a small catheter will be placed into your bladder, and the medication instilled. You will then go home and hold the medication for two hours before emptying your bladder. Four to six weeks after the last instillation you will come back to the office for a follow-up cystoscopy to be certain that the treatment was effective and that no tumors have recurred. In some cases it will be recommended that further treatments be given in the future to prevent recurrences, similar to booster shots that are given for certain vaccines. The following pages describe the process of bladder instillation in more detail, as well as potential side effects and risks.

## **Preparing for your Bladder Instillation**

For maximum effect, the medication must be at full strength (undiluted by urine), and must remain in direct contact with the inside of the bladder for 2 hours. By following these instructions you can help the medication do its job:

- Prior to each treatment, limit your fluid intake for 8-12 hours, and do not drink any fluids for 4 hours prior to the treatment. It is easiest to schedule the treatment first thing in the morning.
- Empty your bladder just before the instillation.
- Retain the medication in your bladder for two hours, or as long as possible.

## **The Bladder Instillation**

The bladder instillation starts with passage of a small catheter through the urethra into the bladder. The urethra will be well-lubricated and it should not be painful. If there is difficulty passing the catheter or there is bleeding from the urethra the instillation may be postponed for one week. The bladder will then be drained and the medication instilled. Afterwards the catheter is removed and you will be allowed to get up and go home. On the first instillation you will be asked to wait in the waiting room for 15 minutes to be sure you don't have any reaction to the medication.

## **After the Bladder Instillation**

You should try to hold the medication for 2 full hours if possible. To avoid contact with the medication by yourself or others you should go home after the instillation and use a single toilet for the next 6 hours. When urinating you should follow these procedures:

- Avoid any splashing and spraying by sitting on the toilet when you empty your bladder.
- Empty your bladder completely.
- Wash your hands and genital area with soap and a wash cloth thoroughly after urinating.
- If the medication instilled was BCG you should pour 2 cups of household bleach into the toilet before flushing, allow the bleach and urine to sit for 20 minutes, and then flush.
- After you empty your bladder the first time after the instillation, you should flush out your bladder by drinking plenty of liquids for the next 12 hours.

## **Side Effects of Bladder Instillation**

Most patients will have some side effects from bladder instillation, but fortunately they are usually minor and short-lived. The side effects may increase as you near the end of the course of treatments. In any case, side effects should resolve by the time of the next treatment. If you are still having symptoms on the day of your next treatment you must inform the nurse or doctor. The next treatment should not be given if side effects persist. The side effects of bladder instillation and appropriate treatments are listed below.

## **Common side effects**

- Fever, usually less than 101.5°F. Tylenol is usually effective.
- Burning with urination. If severe, may use Pyridium as needed.
- Urgent need to urinate, incontinence. Usually resolves within 2-3 days.
- Blood in urine. Usually starts within 24 hours of instillation and resolves within 24 hours. Drink plenty of fluids to keep bladder flushed.
- Flu-like symptoms. Use Tylenol, rest, resolves within 1-2 days.
- Urinary tract infection. Occurs 2% of time after bladder instillation. If symptoms persist beyond 2-3 days you may be asked to give a urine specimen to check for infection. Further instillations will be postponed until any infection is treated. Routine use of antibiotics after bladder instillation is not necessary and can lower the effectiveness of certain treatments.

## **Uncommon or Serious Side Effects**

- Fever higher than 103°F. This happens in 3% of patients treated with BCG and much less often in treatment with other medications. You should notify the doctor immediately. The fever will resolve in most patients with Tylenol and fluids but the doctor may hospitalize you and start you on medication for sepsis (see below). Patients who have high fever with BCG may continue to receive BCG if necessary but will usually require a medication to prevent further fever.
- BCG sepsis. Sepsis means a blood infection, and this can happen with BCG in 0.4% of patients. Most cases of BCG sepsis occur because the medication is instilled less than 2 weeks from surgery, after a difficult catheterization, or in a patient who still has side effects from the last treatment. Patients with BCG sepsis may have high fever (greater than 101.5°F), chills, headaches or other symptoms and will feel very ill. You should call the doctor immediately if you have these symptoms and you may be hospitalized and given medications to fight the infection.
- Arthritis or skin rash (0.5% of patients). These are forms of allergic reaction and will usually resolve without treatment. Benadryl may help.
- Bone-marrow suppression. This causes a low white blood cell count and occurs only in patients who receive a medication called Thiotepa. The risk is approximately 10% and the blood count will be monitored while you are receiving the instillations.

## **When to Call the Doctor**

You should call the doctor if you have questions about any symptom that you are having, since it is better to be safe than sorry. Most symptoms are minor and resolve quickly as described above and you do not need to call. You should call the doctor if you have the following:

- Fever more than 101.5°F
- Bleeding in the urine beyond 48 hours after the instillation

- increasing fatigue instead of feeling better 2-3 days after instillation
- shortness of breath, persistent coughing
- diffuse skin rash
- difficulty urinating