SOUTH BAY UROLOGY MEDICAL GROUP, INC.

A DIVISION OF USSC

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BCG Treatment for Bladder Cancer

After a bladder cancer is cystoscopically (*i.e.* through the urethra) removed, the pathologic analysis will define the grade (aggressiveness) and stage (extent) of the cancer. When the cancer does not involve the muscle of the bladder, BCG treatment may be indicated. BCG (*Bacillius Calmette-Guerin*) is a live, attenuated vaccine that was historically used to prevent tuberculosis. It has been used for years to treat superficial bladder cancer. Superficial bladder cancer has a 50-80% chance of recurring if left untreated. Though data has consistently shown a significant decrease in both the recurrence and progression of bladder cancer in patients treated with BCG, the mechanism by which this occurs is not clearly understood. It is theorized that the BCG acts by stimulating the body's immune system (BCG is known as *immuno*therapy) to destroy the cancer cells.

Even after BCG treatments, however, superficial bladder cancer can always recur, even years after there is no evidence of disease. It is important for patients to understand that superficial bladder cancer requires LIFELONG surveillance with periodic cystoscopic and cytologic (evaluation of voided urine) evaluation.

Types of BCG treatments:

Induction BCG

A six-week course of BCG - known as *induction* BCG - is given after the initial bladder cancer is removed. It consists of office-based bladder instillations once per week for six weeks. After completion of the induction course, your doctor will perform a cystoscopy to ensure adequate response and check for recurrence.

Maintenance BCG

When a patient has risk factors for rapid cancer recurrence, continuing the BCG for a total of 3 years - known as maintenance BCG - may be indicated. This consists of a three-week course of BCG repeated at 3 months, 6 months, and then every 6 months for 3 years after the initial resection. Cystoscopic evaluation is performed between each 3-week course. Data has shown a continued decrease in cancer recurrence when patients undergo maintenance BCG.

Before the BCG instillation

- Purchase a large bottle of liquid bleach before the initial BCG treatment (details below)
- Do not drink any liquids for 4 hours before each appointment
- Please report any symptoms that may indicate a urinary infection (urinary frequency, urgency, pressure, burning, blood in the urine, etc...)
- At the appointment, you will be asked to provide a urine specimen to ensure there is no infection

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The BCG instillation procedure

- You will be asked to lie on the examination table
- The nurse will clean the genital area with a sterile solution
- A catheter (tube) will be placed gently into the bladder and any residual urine will be emptied
- The BCG solution will be instilled into the bladder through the catheter and the catheter will be removed
- You may then leave the office, but please note the time: the medication should stay in your bladder for two
 hours in order to be maximally effective
- If for some reason you have a large amount of residual urine in the bladder, you may be asked to return to the office in two hours so the nurse can use a catheter to ensure all of the BCG is removed from the bladder

After the BCG instillation

The BCG solution is NOT safe for you or others to touch, but with proper precautions, any inadvertent contact can be avoided. Here are some simple steps which should be followed *for the first 6 hours* after each BCG instillation:

- Sit down on the toilet when you urinate
- Add two cups of liquid bleach to the toilet, close the lid, and wait 15 minutes prior to flushing
- Wash your genital area and hands with soap each time you urinate
- Drink plenty of fluids in order to wash out the bladder

Side effects of BCG treatment

Some side effects are expected after BCG and may worsen with each successive treatment, including:

- Urinary symptoms (frequency, urgency, burning, blood in the urine)
- Malaise or fatigue
- Low grade fever or mild flu-like symptoms

These symptoms usually resolve within 24-48 hours and can be managed with NSAIDs (Advil®, Motrin®, Aleve®) and/or Pyridium®. Let the nurse know if you get these symptoms and medications can be provided for you.

Please report the following conditions:

- Heavy bleeding which is worsening with blood clots
- Burning that is worsening or lasting more than a few days after the procedure
- Fever > 101.5°F or severe flu-like symptoms
- Inability to urinate
- Unusual NEW symptoms such as joint pain or body rash

As always, please do not hesitate to contact the office if any issues or questions arise