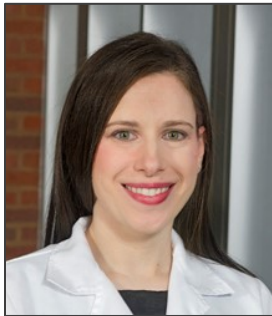


Presented by:



Dr. Janet Kukreja attended the University of Missouri, Kansas City, six-year combination program to get her MD, and then she completed her residency in urology at the University of Rochester Medical Center in Rochester, New York. While she was in residency, she was able to earn her MPH from the University of Rochester School of Medicine and Dentistry, and she's currently a urologic oncology fellow working on clinical trials, health services research and translational research at MD Anderson Cancer Center.

Dr. Kukreja: I'm going to go over some tips and tricks, and I think the first thing that I'm going to talk about really tacks onto what he was talking about, the important things to discuss with your doctor.

After you have your initial resection, it's important to discuss with your doctor if you should have another resection, so, often, for patients that have high grade disease, and we recommend that they undergo another TURBT even if the doctor thought that they got all the tumor at the first time. This is helpful for many reasons. It can reduce the tumor volume, thereby increasing the efficacy of BCG.

What are some of the risks of BCG? What are the symptoms that patients experience? A lot of the symptoms that we hear about are lower urinary tract irritation. This can come in the form of bladder spasms, frequent urination, dysuria or pain with urination, burning with urination and then other things like flu-like symptoms.

The flu-like symptoms are

Risks of BCG

- Lower urinary tract irritation
- Flu like symptoms
- Few patients have to discontinue treatment due to side effects
- BCG in the blood stream can cause a serious infection
- BCG may cause infection in other part of the urinary system



related to the immunotherapy type reaction that your body is experiencing and, actually, sometimes the flu-like symptoms are a good sign that the BCG is actually working and that your body is responding to it. Like Dr. Kamat talked about, a few patients have to discontinue their treatment due to side effects as long as the side effects are controlled.

There are a few things that are serious that can happen with BCG. One of them is that the BCG can get into the bloodstream and make you very sick. If you have a fever above 101.5 after getting a BCG instillation, then this is something you definitely need to contact your healthcare provider about.

The other thing is that BCG may cause an infection in another part of the urinary system, and a lot of these can be managed conservatively and don't require any intervention.

Benefits of BCG

- Non-invasive
- Directly treats the bladder lining
- Most effective at reducing recurrence and progression of bladder tumors
- Half of patients have a complete response and have no tumor recurrence
- Urinary alkalization is not required
- Severe side effects are rare



There are some benefits of BCG over other treatments, in that BCG is actually relatively noninvasive. Even though a catheter is used to instill it, it is not a procedure that requires going to the operation room or that's really painful when it is done, and the BCG directly treats the bladder lining, so even though you may have some systemic

side effects, unlike chemotherapy and even the intravesical chemotherapies we use, it doesn't affect your blood counts or anything like that.

BCG, as Dr. Kamat talked about, also reduces your risk of recurrence and progression of your bladder tumors, and over half of the patients have complete responses and have no tumor recurrence after BCG.

Some of the other bladder treatments that are done in the clinic require urinary alkalization and some other things that you have to do in order for it to be more effective. With BCG, you don't have to take any other medications in order for it to be the most effective, and the severe side effects are rare, so some tips or tricks for instillation.

Make sure that you empty your bladder just before the BCG instillation, so, often, on your way into the room where you're going to get instilled, just stop at the bathroom on the way. A lot of people will not drink about four hours, starting four hours beforehand, like no liquids, no anything to help reduce the amount of urine that's produced so that they can hold the BCG long enough for it to be effective. The BCG should be held in the bladder for about two hours in order to have its maximum efficacy. In addition, avoiding caffeinated beverages the day of instillation

Tips and Tricks for Instillation

- Make sure the bladder is emptied just before the BCG instillation
- Do not drink caffeinated beverages before the instillation
- Limit fluids before instillation
- Do not use lidocaine lubrication for catheter placement
- Do not use more lubrication than necessary for catheter placement



<http://www.elsevier.com/locate/bsr>
<https://www.dissertation.com/targeting-uptake-of-bcg-in-bladder-cancer/>

I think this tacks onto what Dr. Kamat was talking about as far as myths, and one of, I think, the biggest myths around BCG as far as the instillation is that you have to change positions. So there's actually no

Tips and Tricks for Installation

- Changing positions is not necessary after BCG is placed in the bladder
- Wait 6 hours after the instillation to take Coumadin (warfarin) or cholesterol lowering statins (ex. Simvastatin)



data that supports changing positions is necessary after BCG is instilled, so I hear a lot of patients talk about, "Oh, I have to, you know, basically do somersaults."

That's actually not necessary, and if your provider recommends that, ask them why they're recommending that, and this can

actually make your experience more comfortable not having to change positions all the time, and then waiting a few hours to take some medications will also improve the effectiveness of the BCG, and it's actually very common medications such as cholesterol medications. Simvastatin, atorvastatin, that type of medication, and the blood thinner, Coumadin, are some of the very common ones.

You don't have to stop these altogether. They just recommend that you take them six hours after you have the BCG instillation, and then one of the biggest offenders are antibiotics, reducing the effectiveness of the BCG. A lot of providers will sometimes give you antibiotics to try and make your symptoms better from the BCG instillation.

Tips and Tricks for Installation

- BCG treatment effects are weakened by some antibiotics
- Waiting 6 hours after the instillation if antibiotics are needed is best
- Antibiotics do not reduce the BCG side effects if given at the same time as the instillation



<https://paulhoyln.wordpress.com/2011/07/28/headline-antibiotics-beat-gram-negative-resistance-in-v-trial-section/>

However, there are studies that show that the symptoms are actually not reduced if you get antibiotics at the time of the BCG instillation and it actually reduces the effectiveness of the BCG.

If you do need the antibiotics while you're on BCG, it's recommended that you wait at least a six-hour time period before getting the antibiotics. There is no data that support that antibiotics reduce the BCG's side effects if they're given at the same time as the instillation.

Symptom Relief

- Antispasmodics
- Acetaminophen for flu-like symptoms if necessary
- Increase fluid intake after the instillation



How do you make your symptoms better? If you're having a lot of the lower urinary track symptoms, asking your doctor about antispasmodic medications such as oxybutynin or Ditropan or Detrol, those types of medications can often help with a lot of the frequency and urgency and burning with urination that you feel after a BCG instillation.

If you start experiencing those flu-like symptoms, acetaminophen or Tylenol is very helpful if you're uncomfortable, and then increasing your fluid intake after the instillation, so once the BCG has voided out, taking in more fluid that day and continuously washing out the irritant will help you decrease your symptoms.

One of the common cautions we get is sex after BCG, so the recommendations are that you wait 48 hours after the treatment, whether you're male or female, and then also that a barrier such as a condom should be used during the entire six-week course of BCG, and then if immunocompromised partners are involved, if you follow the above guidelines, the immunocompromised partner should not be at risk.

To add to Dr. Kamat's important points, repeating the TURBT or bladder resection prior to BCG instillation is important for a lot of patients, especially the patients with the high risk disease, and then ask your provider about prevention and management of symptoms if you start experiencing them. We're more than happy to help you manage these so that you can get through your BCG treatments.

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