BCG cannot be given if

- Surgery was less than two weeks ago
- You see blood in the urine or have had difficulty with catheter placement (blood at the tip of the catheter)
- Urinary tract infection
- Fever
- History of severe BCG reaction (BCG sepsis)
- Use with caution if decreased immune system, such as on steroids (prednisone), HIV, other cancer

Before each instillation

- Check urinalysis for visible blood or infection. If visible blood, do not give BCG. If leukocytes esterase or nitrates, send urinalysis, microscopy and culture. Check with provider.
- Check temperature. If fever, do not give BCG.
- Check if patient had side effects or complications from BCG in the previous weeks.

Catheterize patient

- If catheterization is traumatic or bloody, do NOT give BCG.
- Drain residual urine and measure post void residual, if >200 mL, patient may need to be catheterized two hours after instillation to avoid excess exposure to BCG.

Mixing

- Do not handle if immune system problems or pregnant
- Use gloves and mask
- Must use within two hours of mixing

TICE mixing

- Add 1 mL Sodium Chloride to TICE BCG and swirl the solution until cloudy
- Inject into 49 mL Sodium Chloride
- Insert IV port into catheter in the bladder
- Drain BCG into bladder by gravity
- Remove catheter
- All BCG supplies, including packaging and catheter, should be placed immediately into biohazard container
Common side effects

- Bladder pain and painful urination: usually starts after third instillation and resolves within 24 hours.
- Urinary frequency and urgency
- Hematuria: usually resolves within 24 hours
- Fatigue: usually starts after third treatment
- Low grade fever <101°F, chills: resolves within 24 hours
- Body aches: resolves within 24 hours
- Bladder spasms, urinary tract infection
- Life-threatening complications (3%): fever over 103°F, requires hospitalization, cultures, antibiotics, anti-tuberculosis medications, infectious disease consult

Treatment of side effects

- None if mild
- Acetaminophen (Tylenol)
- Phenazopyridine (Pyridium, Azo). Azo is over the counter
- Anticholinergic medications (overactive bladder medications). Oxytrol patch is over the counter
- May need to decrease BCG dose

Patient education

- May want to decrease fluid intake before the treatment
- Attempt to hold BCG for two hours
- Instruct patient to lie in different positions during treatment so the BCG comes in contact with all areas of the bladder.
- After two hours, urinate into toilet. Place two cups undiluted bleach in toilet and close lid. Let stand for 15 minutes. Repeat for every void for six hours.
- Drink plenty of fluids after first void
- Call if fever >101°F
- Make sure patient is set up for cystoscopy after treatment course. Patients need lifelong monitoring as bladder cancer tends to come back. It is extremely important they always follow up with us.

Treatment schedule

- First course of BCG is every week for six weeks
- Strength of BCG and treatment plan can vary. Follow ordering doctors protocol.