



## Bladder Cancer and COVID-19 | Southwest Regional Update for Patients and Families.

*This program was recorded on April 14, 2020*

BCAN | Stephanie Chisolm:

Hello, and welcome to Bladder Cancer and COVID-19 Regional Update for patients and their families. My name is Stephanie Chisolm and I'm the Director of Education and Research at BCAN. We're delighted to be able to share these expert opinions from leading bladder cancer experts as they have an informal discussion of the impact of COVID-19 in the Southwest region. I'm really thrilled to have on board [Dr. Seth Lerner](#) who is on the BCAN Board of Directors and he's at Baylor University. He is a urologist. Welcome Dr. Lerner.

BCAN | Stephanie Chisolm:

[Dr. Parminder Singh](#) is a medical oncologist at the Mayo Clinic. We have radiation oncologist, [Dr. Sameer Jhavar](#). He is at Baylor Scott & White Health down in Texas. And then community urologist, [Dr. Larry Karsh](#) at the Urology Center of Colorado in Denver. Welcome, everyone. We really do appreciate your being on this program as we begin to shed a little more light on what's happening in bladder cancer around the country.

BCAN | Stephanie Chisolm:

I'm going to jump right in and talk a little bit. We all are very aware of social distancing. Everyone knows you have to have six feet around you and wear a mask and all of those things. But this concept of medical distancing can be very unnerving for patients. When they're told by their medical practitioners that they don't need to come in because the risk of coming in and coming in contact with COVID-19 is greater than the risk of not being treated, it can be really unnerving. We hear from patients on a regular basis that this is something they're really worried about. Should they not get their treatment? Should they not come in for surveillance?

BCAN | Stephanie Chisolm:

I'd like to just ask you if you would just give a little brief talk about what you think is going on in the concept of medical distancing, how you see protocols either at your hospital or your doctor's office changing to help protect both the patients and staff. Dr. Karsh, if you want to start, we could start with you and then we'll finish up with Dr. Lerner on the back end, if that's okay.

Dr. Karsh:

Sure. Well, first of all, thank you, Stephanie and BCAN for putting on these types of programs to help our patients understand what's happening in the COVID crisis. I'd like to thank all the healthcare workers out there that are on the front line that are really protecting us and our patients, and so they're doing a tremendous job.

Dr. Karsh:

This has been unprecedented, just everything that's been going on, and we've had to make lots of changes in our practice in order to try to adapt to this new way of delivering healthcare. We're seeing less patients than we normally do and we're trying to risk stratify all of our patients to see who needs to come into the office. A lot of our workers are working from home. We have a staff on the front lines here.

Dr. Karsh:

When patients walk in the door, we have a guard there and we have a stop sign and the social distancing, we have a desk that's about six feet away. The first thing that happens is the patient gets a mask and we take their temperature. We also have a questionnaire for them to fill out. If it looks like they may be ill, then we turn them away from the clinic and have them see their healthcare provider. We have a special triage unit set up so that when patients call in, we can determine if a patient needs to come into the office or they can be seen with a telehealth encounter.

Dr. Karsh:

Those are some of the things we're doing. The distancing, the hand washing, masks, and so we're trying to prevent any further illness. That's basically what we're doing and then we can probably talk about the nuts and bolts of how we're following our patients, especially when we're talking about bladder cancer patients.

BCAN | Stephanie Chisolm:

Yeah, we'll be covering that in just a minute. Dr. Singh, could you comment about what's happening at Mayo Clinic?

Dr. Singh:

Perfect, thank you, Stephanie, for organizing and thank you BCAN for doing this for our patients. It's unprecedented times the way things have evolved in the last two months, the way the practices have changed all over the country. Mayo is not immune to any of these changes. It's a big corporation, and the decisions being made at very high levels, and the patient flow into the clinic has changed nearly every week.

Dr. Singh:

We went from no masks to masks, providers to masking patients now. As Dr. Karsh was talking about, we also have a similar process for patients coming in, walking into the clinic. First of all, what is very difficult for many of our cancer patients is that there is no family policy instituted at big hospitals where family members cannot accompany patients into the clinic. There are elderly patients who are getting [chemotherapy](#), they are wheeled into the clinic by themselves without any family support. Many times, they are sick that they may not know what questions they have to ask, or family may give us more information about the patient's clinical situation, so we have to deal with this new workflow of getting patients in without their family members.

Dr. Singh:

Then again, they are given a questionnaire and their temperature is checked up front. If they have fever or any of the signs/symptoms which may indicate that they may have an infection, they are wheeled towards a drive-through COVID testing tent where Mayo is offering drive-through testing for COVID in the parking lot itself. Then these patients, within 24 hours, the results come back and they are given back to the patients. For patients who clear this first line of checks, they are allowed to go up to the floor of getting their blood work and to the visits. They are given a mask if they haven't brought their own masks, to wear to the clinics and wheeled into the rooms. Again, they are given a small, brief handout describing social distancing, how do they have to wash hands, and how to be comfortable with all that is going on right now. Clearly, it has impacted the workflow of our patients coming to the clinic.

BCAN | Stephanie Chisolm:

Yeah, I think so, absolutely. Dr. Jhavar, you're on right now. What's going on with your practice in Texas? From the radiation oncology perspective, are you still able to keep up with the patients the way that you were?

Dr. Jhavar:

Yes, we are. Actually, we have to because our treatments go on for weeks. So, patients that have started treatment a few weeks ago, they need to continue treatment. Some patients have been planned to start treatments, they need to start. Really, cancer treatment does not stop. I'm proud of all the healthcare workers here, our therapists, working on the frontline. Initially, they were pretty much battling this every day without masks, like Parminder was saying. Now, slowly, with the PPEs coming in, they are getting masks.

Dr. Jhavar:

We have very similar strategies to what Dr. Karsh and Dr. Singh were saying. In fact, what we have done in the hospital here, it's a big health program in central Texas, so we have many clinics which are spread out. The main hospital, they have shut down, closed most of the inlets to the hospital. Only a few doors are open which allow patients in. At every door, there is a screening table that obviously asks all the relevant questions. They will take temperatures, and then if the patients are at-risk or the family members are at-risk, they are asked to take the exit to where they can go and get tested. If the patients pass the screening, then only the patient's allowed in the hospital building or the clinic. Right now, all our corridors, our hallways are deserted. It's only the patients that are able to walk in and walk out.

Dr. Jhavar:

Because machines are on from eight to five, each patient has a time slot on the machine. They show up before their time, and what happens is only one or possibly two persons are let into the clinic just before their time for treatment, and then the next patient is called in, so they are usually waiting outside in the parking lot. Then the staff will call them and ask them to come in to get their treatment and walk out.

Dr. Jhavar:

Again, when they come in, if there is an on-treatment visit that needs to be done, they will go to see the physician in the room. We try to keep six feet distance, but it's hard because our hospitals are old and we don't have that much room. We try to maintain the distance with the masks obviously on, try to limit the time that they can be in here and expose each other, and then they leave. Most of our new consults, follow-ups have been moved to video or telehealth. Patients like it, understand everything while they're sitting on their couch at home. We have town hall meetings every day from the leadership. We just had one today. We are being told that telehealth is possibly going to stay here, if not forever, for a very long time.

Dr. Jhavar:

Radiation therapy is going. It's continuing, we will not stop. Yes, our numbers have gone down because we are a referral-based practice, so if the family practice doctors and the primary physicians and the medical oncologists and the urologists are not seeing patients, obviously, we don't get the trickle down, but we have our own patients that are on treatment. And then emergencies always go on. For example, bleeding in the urine from bladder cancer, we can't stop. We can't ask them to come after three months. They have to start treatment right then.

BCAN | Stephanie Chisolm:

Right. Dr. Lerner, is there anything different going on in Baylor that's different from what we've already heard?

Dr. Lerner:

Not from the outpatient clinic standpoint. I think maybe I'll talk a little bit about surgery. In Texas, and I imagine it's similar across the Southwest, cancer surgery is still prioritized, so obvious emergencies, regardless of the specialty. But we're still able to and allowed to perform cancer surgeries. Let's say we've had a number of patients who've come in with a first diagnosis. We're been doing for quite some time, we can do biopsies cystoscopically in the office. If we identify a patient with a [high-grade cancer](#), that would get prioritized and we'd get them to the operating room in a timely fashion so we can make a diagnosis, understand the staging, and get a treatment plan together for them during this.

Dr. Lerner:

It's a little bit more challenging whether we should be doing radical cystectomies. Part of the considerations there are the fact that you're bringing a patient into the hospital where there's patients with COVID-19 infections and they're going to be in the hospital even with a target length of stay of about five days, and of course, a five or six hour operation that we've got the staff and everything else.

Dr. Lerner:

So, we can do those, and many centers are doing those. If we have a patient who needs one done within, we try to keep it within the six weeks after, say, chemotherapy, and within a reasonable time frame from diagnosis. We're set up to do that. I think what some centers are doing and what we're pushing really hard for is to be able to have a patient come in no later than a day or two ahead of time, get tested for COVID-19, and if they're negative, then proceed with the surgery. If they're positive, well then they need to be quarantined and we'll push it back a couple of weeks.

Bladder Cancer and COVID-19 | Southwest Regional Update for Patients and Families.

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Dr. Lerner:

I think that's been a real change, and as some mentioned, the collaboration between the medical school faculty, the hospital, and the administration and multiple hospitals within the Texas medical center, in our case, a tremendous amount of sharing information, best practices, you name it. That's actually one of the really nice things in a crisis like this.

BCAN | Stephanie Chisolm:

I think that this is what we're hearing a lot. There's a lot of variation because we've done this program, this is now the fifth regional program that we've done. Your colleagues in the New York area are saying, "We're not doing any surgeries," and that's a big difference between those. I think this is very informative to be able to really take a look at what's going on locally in these different regions. Can we talk a little bit about when is it okay to have a delay in treatment and/or surveillance? Because this is a big concern from the patient community. We are getting emails from patients on a regular basis.

BCAN | Stephanie Chisolm:

Dr. Lerner, do you want to kick this one off? When is it okay to say "You know what? We need you to stay out for the next couple of weeks until things quiet down and we have a better handle on this?"

Dr. Lerner:

Yeah, that's a really great question. The majority of our patients have non-muscle invasive cancer, and we're treating them with the intent of helping them keep their bladder for the rest of their lives, hopefully. We're certainly prioritizing patients with high-risk or high-grade disease. Most of those patients are getting BCG.

Dr. Lerner:

We have patients on clinical trials that we're doing everything possible to keep them on schedule, keep their surveillance cystoscopies on schedule because those are the highest risk patients. You could argue, or at least I would argue, that the risk benefit of coming into a healthcare center for your [cystoscopy](#) is, I would say the benefit far outweighs any risk. Now, our environment, just like Dr. Karsh's, we're not physically in a hospital, so the hospital is obviously going to be the high-risk area, it would be there. We certainly are going to have certainly asymptomatic COVID-19 patients in the clinic, but I would argue that the risk is lower.

Dr. Lerner:

Now, if you have a patient with a low-risk cancer, so a low-grade cancer, and let's say they're scheduled for their annual surveillance, we're not going to do that. We're going to push that out probably six-eight weeks because the risk to that patient is actually very, very low. I would say sort of risk stratifying, trying to keep the highest risk patients on schedule, trying to keep their treatments on schedule.

Dr. Lerner:

Quite frankly, we and many, many centers are continuing to enroll patients on clinical trials. I think the community may be aware that there's clinical trials where essentially we can guarantee access to BCG. There's a BCG shortage, so we're pushing really hard when those patients are eligible, to give them the opportunity to enroll in those trials. On the surgical side, I think I've already addressed that. And then there's complex issues which the other panelists would be able to address in terms of chemotherapy, [immunotherapy](#), and the treatments for more advanced disease.

BCAN | Stephanie Chisolm:

Before we talk about that, Dr. Karsh, did you have anything else to add from the community perspective?

Dr. Karsh:

I would agree with Dr. Lerner's assessment. We need to risk stratify and see who is really at-risk for waiting and who we need to do cystoscopies or surgery on right away. I think some of the things that are changing for us is we were always on this pattern of having patients come in every three months for their cystoscopy for the first two years and then every six months for the next two years and then yearly after that.

Dr. Karsh:

I think we can look at the European model and I think with low-risk patients or even intermediate, we might be able to push that off now. Now, this has given us an opportunity to kind of test that. We might be able to go, after their first three months surveillance, maybe go six-nine months before their next, and then do that for a few years and then yearly thereafter. The way that we've done surveillance really was empiric and it really wasn't based on Level I evidence. Now, I think we're seeing that we might be able to hold patients off who are low-risk, for having to have these procedures. I think that when you have low-risk, non-muscle invasive bladder cancer, I think if we delay that cysto by two or three months, I don't think it's going to really have an impact on the progression of that disease.

Dr. Karsh:

I think that patients are anxious about that because we've always drilled into their head, "Well, you need to come in every three months. We've got to do that for the first two years and if you miss your cystoscopy, there's going to be trouble." But I think that when we risk stratify and when we have low-grade and some of these intermediates, we can probably push off the surveillance cystoscopy.

BCAN | Stephanie Chisolm:

Well, I agree. We're backing you up on that because that is what our patients are saying. They said, "My doctor told me I have to come in for these tests, and now they're telling me I can't come in." So, it might change the climate a little bit in terms of the general practice. I think that would be rather interesting.

BCAN | Stephanie Chisolm:

Dr. Singh, what are you seeing? When is it okay to have a delay, and how do you handle that for your patients?

Dr. Singh:

So again, thanks for the lead from Dr. Lerner and Dr. Karsh regarding the treatment for non-muscle invasive bladder cancer. Once the patient ends up in our clinic, they primarily have muscle-invasive disease or they may have advanced metastatic disease. Recently, non-muscle invasive disease patients are now coming into our clinics for immunotherapy, but the primary population of patients we are used to seeing are advanced disease patients.

Dr. Singh:

With the COVID surge and changes in the workflow, what we have seen is that there has been no delay in the chemotherapy aspect of the treatment of these patients. Essentially, the risk of this cancer becomes high enough that can lead to mortality if we have a localized disease and then it becomes advanced disease, that these patients need treatment and they need it to happen on time. We, in fact, have not delayed any chemotherapy in our patients in our location. What has impacted is how we are treating these patients on the chemotherapy, where we are now doing a lot more phone evaluations and video assessments of these patients to reduce their contact. They are getting their blood work done locally a day before so that they don't spend time here in the labs. They just get labs done close by and then they come the next day.

Dr. Singh:

We review the labs and we okay them for chemotherapy, or we may even do a video consultation for assessment of toxicities so we are not asking them to come in extra. If they don't have a chemotherapy visit, then they can just do a video consult for assessment of toxicities. That's where the big workflow change is happening, but these patients are receiving their treatment. What we have seen in Arizona, where the numbers of the COVID patients are very low. In fact, I was looking at the zip codes in and around the Phoenix area. In a zip code, the number of patients range from six to 20 patients in a whole zip code. The numbers are very low, so these patients with cancer have not seen any change in their treatment paradigm of receiving.

Dr. Singh:

Now, the question comes up where there is an equipoise. Patient is looking for [bladder preservation](#) and there's an aspect of visiting the health center every day for radiation and having their chemotherapy for six weeks during this high COVID time versus getting chemotherapy and getting lined up for surgery in three months. That's where case-by-case discussion comes up. How much of a risk is locally high enough for a patient walking into the clinic every day for radiation versus they get their chemotherapy, which is done once every three weeks, which tides them over the surge period of COVID and we try to maintain social distancing so that they don't catch the infection, then line them up for surgery later on. Or maybe just do neoadjuvant chemotherapy and then decide regarding radiation or surgery in three months is a question of discussion which is ongoing right now with every patient.

Dr. Singh:

In the advanced disease setting, is again, a discussion between a patient where our goal is either palliative or the intent is to achieve a disease remission. That's where we are having a bigger conversation with patient and the family. In fact, I had a conversation with a case, 95-year-old gentleman from a nursing home with family in Colorado and London. They were all on a Zoom video

Bladder Cancer and COVID-19 | Southwest Regional Update for Patients and Families.

*This program was recorded on April 14, 2020*

Page 7 of 19

consultation and we were discussing what's the goal of care here. He has metastatic disease to the liver and bones. Do we need to go after immunotherapy in his situation or do we need to focus on palliative care?

Dr. Singh:

Versus somebody if I see who is 56-year-old with good performance status where we may give them aggressive chemotherapy and there's a chance of achieving disease remission with cisplatin-based chemotherapy. The conversations will become more different and more in tune with the time right now where we may put these patients at risk of just coming in to receive chemotherapy with the intent of palliation. For non-muscle invasive disease, where now recently immunotherapy has been approved for carcinoma in situ patients, we as an institution have decided that we are going to delay start of immunotherapy. These patients can easily wait for six to nine weeks before starting immunotherapy for the non-muscle invasive bladder cancer where the risk of progression is not as high, and then get them rolling after the surge in the community settles down and we can take care of these patients in the clinic.

BCAN | Stephanie Chisolm:

Thank you so much. Dr. Jhavar, what are you seeing in your practice? When is it okay to skip or delay a treatment or any follow-up that you need to do?

Dr. Jhavar:

There's always been, I don't want to say a fight, but there's always been a competition between how best to treat bladder cancer, especially muscle invasive, whether it's [cystectomy](#) or bladder preservation approach. COVID-19 situation, since it started, I have seen at least in my practice here, because surgeries have been shut, the ORs have been shut, surgeries have been cut down, I have seen slightly more referrals for bladder preservation with chemoradiation than I've seen in the last few years. Which is an interesting phenomenon which is encouraging because we are able to treat a lot more patients with their bladders intact. That's one thing I have seen happen.

Dr. Jhavar:

With radiation, the good news is we have options. Especially bladder cancer, we have established the efficacy and the safety of shorter treatment courses. Traditionally, radiation is delivered every day, Monday through Friday, in particular for bladder cancer, over a period of seven to eight weeks, between 32 to 36 fractions. We have well-established, randomized data to show that cutting down from eight weeks to four weeks of radiation is as effective without any difference in outcomes. That's where we have a potential advantage of offering our patients, especially in the COVID situation. We can hypo-fractionate.

Dr. Jhavar:

A lot of these cooperative groups, big, national groups, ASTRO, ASCO, they have come up with recommendations now as to how best to treat patients with radiation especially in the COVID-19 situation. Most disease sites, the recommendation is to do hypo-fractionation is what we call it, which means reduced number of total fractions with slightly higher dose per fraction, which basically equals up to the same biological dose and treat these patients if they need to start immediately. There's also

Bladder Cancer and COVID-19 | Southwest Regional Update for Patients and Families.

*This program was recorded on April 14, 2020*

Page 8 of 19



options available in radiation for bladder cancer where we can treat once a week for four to six weeks. That's an option too.

Dr. Jhavar:

We certainly don't want patients who cannot have cystectomy to wait for three months before they can start chemoradiation if that's the intent. So, the options that Dr. Singh presented are obviously valid. But if we have to start somebody, especially somebody who has been enrolled on a trial, and they need to start radiation, we are not stopping them from going ahead. Unfortunately, in some of the trials right now, the hypo-fractionation or shorter courses are not part of the trials, so we can't offer them. But off-trial, we can certainly offer them shorter courses of radiation without having to worry that we will compromise on the efficacy of treatment. For patients who are bleeding, have hematuria and that's why they are being referred for radiation because radiation is excellent palliative modality, we don't have to wait. We can start planning and treating patients within a few days and then they can complete their treatment within a few days, giving them good bleeding control. So, that's what I have to offer in terms of this question.

BCAN | Stephanie Chisolm:

I really appreciate this. I think it's really helpful to understand what patients really need to pay attention to, and when they are being told you can wait, it really is okay because it is backed by some of the science. I think that's very important for patients to hear that.

BCAN | Stephanie Chisolm:

Let's move on to the next question, if you don't mind. What constitutes an urgent need for care? You alluded to this a little bit earlier as you were talking about what was happening in your institutions, in your practices. What should patients and their families know about what to expect when they come in for care, if there's an urgent situation? What is really urgent for the bladder cancer patients where they need to come in for care? I know you're doing a lot of pre-screening for that on the teleconferences with telehealth, but when should patients come in to see you? Dr. Lerner?

Dr. Lerner:

Well, we'll call it a generic visit, whether it's telemedicine, which I think all of us are probably seeing new patients with that initial consultation by telemedicine. Sorry for the background. With the capability of Zoom or whatever program you have, we can actually have a really positive, productive conversation. It's not quite the same, but we're open for business. Sorry.

Dr. Lerner:

I get calls just like I'm sure all of the panelists do, with patients with new diagnosis of invasive bladder cancer that we're trying to follow our normal timelines as best we can. And as I mentioned before, if the patient needs to go to the operating room for additional diagnostic studies, we can do that. If there's an urgent need, say for a major operation, we can do that. Because cancer doesn't stop during a pandemic.

Dr. Lerner:

We're trying to communicate to our referring doctors and patients that we're here. We're ready to see them. It may not be in person initially, and what's striking to me is how receptive the patients are to that, and quite frankly, appreciative. There's a little bit of an art to establishing that relationship, but I think that it doesn't take very long to get the hang of it. We're just doing it a little differently. I think the bottom line is that I think all of us who specialize in this disease are really trying to be responsive to the needs of our referring doctors and the needs of our patients. The people in the Northeast right now, they have the telehealth capability, but they may not have the capability of doing operations, but I think operations are still getting done when they're needed. That's our goal. That's our job, quite frankly.

Dr. Karsh:

I agree with that wholeheartedly. I think what we're trying to do is with our triage team, try to figure out who needs to be seen. If patients need treatment and they need to be either diagnosed or treated, we're doing that right away. I would also mention that patients who have gross hematuria and they've never had a diagnosis before, we put them on the fast track so that they will get their imaging as well as cystoscopy so that we can at least find out whether or not they have, whether it's a low-grade or a high-grade tumor, and we have the capability of doing a biopsy at the time of cysto as well. I would say that those patients are also on our high priority. We're not allowed to do any elective surgery in Colorado, but I think that when we see a patient needs something, they get whatever they need.

BCAN | Stephanie Chisolm:

That's good to know. Dr. Singh?

Dr. Singh:

We had talked briefly about the chemotherapy and immunotherapy. I would just echo what is being said, that patients who need treatment, they are being seen right away. Yes, however, the first consultation is happening to be video consultation where we are giving the patients the idea of the oncoming treatment and options. Then certainly they are being seen in the clinic at the first available visit to get their treatment started if that's the direction they want to take.

Dr. Singh:

But we haven't seen any, in fact, we were looking at our infusion clinic calendars and we have not seen any decrease in the volume of the infusion clinic because patients who are on treatment now or who need treatment, they're lined up for their treatments and they're receiving their treatments. Patients need to understand that coronavirus, since it's an airborne disease, there are ways to prevent this. If they wear masks, they practice social distancing, they avoid touching their face when they are visiting healthcare facilities where there's a chance of contamination, they wash their hands frequently, this infection is preventable. The results are very clear in different states which have been aggressive with this strategy. If they practice that and they stay away from other family members at home during the course of their treatments where there is a risk of immunosuppression, I have not seen any patients, any of my own patients who are on ongoing chemotherapy, have any kind of infection.

Dr. Singh:

Yes, however, there is data from China and from Fred Hutch here in US which shows that patients of cancer who end up catching coronavirus infection, their outcomes may not be good. There is always a risk of an adverse outcome with this infection, but at the same time, there is no data to show that if a cancer patient is practicing common precautions which are proven to reduce the risk of infection, that they will catch this infection more than the others.

BCAN | Stephanie Chisolm:

Great. Dr. Jhavar, do you have any thoughts on what constitutes an urgent need for patients to come in to see you?

Dr. Jhavar:

I think all three speakers have covered pretty much what I had to say.

BCAN | Stephanie Chisolm:

Okay, all right. Well, this is very helpful. What do we think we're going to see as we begin to know more? I know we've seen early data that came out of China. There's some studies that are coming out from the COVID-19 in Italy where they had so many cases, and then obviously our colleagues up in the Seattle area that were really first on line here in the United States, and now New York.

BCAN | Stephanie Chisolm:

How might we see things evolve with COVID-19 and bladder cancer? What are you seeing in the literature? What are you hearing? What are your thoughts as far as I know in the case of telemedicine, that seems to be something that's universal that has been implemented in a big way. But COVID-19 and bladder cancer, what is the connection and what do we know now or what do we think we're going to find out over time? Anybody?

Dr. Lerner:

Stephanie, by connection, what was that?

BCAN | Stephanie Chisolm:

I'm just thinking we've had some early data that's come out of Seattle area and then stuff out of Italy and China and now New York is really in the middle of everything. What are we thinking might change as a result of this experience for bladder cancer patients?

Dr. Lerner:

Okay. I'll take a stab at that and then I think we've all sort of alluded to it in one fashion or another. I tell you, it's the ability to communicate information, so I'll give an example. I did this actually with several patients who I had video visits with on Monday, yesterday, where using Zoom, you can share your screen.

Dr. Lerner:

I could walk them through every detail of their pathology report. I could pull up my operative report and show them what I described that I found, and I'm really liking this. I think it's an amazing communication tool. I think that every single one of us probably is guilty of, on a regular basis, you have the patient in the exam room, you've got your computer and you're focusing on the computer instead of the patient. It's just one of those situations. This is really cool, I love it. I feel like I can really communicate details in a very meaningful way, so I like that.

Dr. Lerner:

How would a patient feel in the future if they have their surgery and instead of bringing them back into the clinic, maybe it's an hour drive, it's parking, it's all this time out of their day. Well, what if we just set up a telemedicine visit where I go over everything just like I described and they do that in the comfort of their home? I'm basically just giving their results and giving a treatment plan. I've already established a relationship with them, and so I too feel like there's going to be a lot of positive things about telemedicine that are really good for patients. Another example is we all have, because of the nature of the disease, elderly patients for whom it is difficult, it's an ordeal, right? They've got to have a family member bring them in, they've got all these things just to say, for a checkup. You can't do a physical exam by remote, you just can't do it. But there's a lot of things that can be done remotely and check in with patients and just a lot of their post-op visits, we have the ability to do remote.

Dr. Lerner:

It may sound a little weird, but I had a patient on Monday who we put a nephrostomy tube in recently because he had an obstructive kidney and after a bladder reconstruction, and I said, "Well, let me take a look at your nephrostomy site." He pulled up his shirt and showed me his nephrostomy site. His wife actually demonstrated some challenges that she was having irrigating the tube. It wasn't draining very well. I'm thinking, okay, that's what I would have done in the office and here we are, I'm actually monitoring and able to evaluate the care that this individual was getting at home. So, I think that there's a lot of really good things about it. Obviously, the patients will be the judge of that. I think from the physician side of it, there's some nice things.

Dr. Singh:

I agree with Dr. Lerner that this has been remarkable the way we are seeing patients. Patients travel from long distances to come for second opinions, and they already have a care provider locally. I see patients coming down from Colorado or coming from New Mexico for an opinion, and eventually I then try to get them back with their local providers to have their treatment done and just help them through the process.

All this can easily be done by a video consultation where I can show them their images, I show them our pathology review which is either concurrent or different from what their local pathologist has said, and what treatment regimen I would suggest. Patients are very satisfied with their interaction and they are very happy with it, and they are happy to stay with their local oncologist, get their treatment done there, and just follow up with us in three months. I'm sure by that time, they can even send their scans to us in three months and we can review those scans with them on the computer.

Dr. Singh:

Bladder Cancer and COVID-19 | Southwest Regional Update for Patients and Families.

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I totally agree with what Dr. Lerner is saying. This is an opportunity where I am able to look at the screen with the patient, looking at the screen, I can use a notepad using Zoom. I can draw things for them, explain to them in more detail, and then at the same time, show them the images in real-time. Patients are liking it, and this might be the biggest change coming to any kind of cancer care or any care moving forward for our patients here.

Dr. Karsh:

I would echo what Dr. Singh and Dr. Lerner have just said. I think this is a new paradigm for us. If any positive effect of the COVID, I think this is going to change the way we practice in the future. I think it's a good way to do it. You can have other family members present as well and I think it can be more efficiency of time and convenience for patients, so I see this as a positive side effect of everything that's been going on with COVID.

BCAN | Stephanie Chisolm:

Unfortunately, we've all had to deal with the COVID in the meantime to get this to this point where we can universally be able to implement this technology. Dr. Jhavar, do you have anything else to add before we open it up to questions from the group?

Dr. Jhavar:

No, I have nothing else to add.

BCAN | Stephanie Chisolm:

Okay. Well, I'm going to ask a couple questions from the audience. Remember, if you have a question, please submit it. One of the viewers had commented that Dr. Singh mentioned that COVID was airborne and they've never heard this. Did you intend to say that it was an airborne disease or a different description of how it's transmitted, Dr. Singh?

Dr. Singh:

It's a droplet infection. My intent was to say through droplet secretions, yeah.

BCAN | Stephanie Chisolm:

Yeah, droplets, which then become airborne or land on stuff that you pick up.

BCAN | Stephanie Chisolm:

What is the protocol for BCG failure patients during COVID time? Has the choice of treatment changed or not changed? If you don't respond to BCG, what are the options for you as a patient now that COVID is here and we've had to do all these limitations? Can either of the urologists mention that?

Dr. Lerner:

Nothing really changed. I think it was Dr. Singh who mentioned that we obviously now have a new approved immunotherapy for patients with BCG-unresponsive disease, so that's the patient who's had at least two rounds of BCG and still has high-grade disease and does not necessarily need to proceed on to radical cystectomy. Sorry for the background. That's certainly an option and I think that in the present situation, I'd probably favor intravesical chemotherapy. I think we're using a two-drug combination of gemcitabine and docetaxel that's quite effective. I'll let Dr. Singh expand a bit more on perceived risks of immunotherapy in the setting of COVID-19 and particularly in an elderly patient population.

Dr. Lerner:

I think other than that, I don't see any limitations for any of the intravesical therapy options. We've got patients who are on the experimental intravesical gene therapy; we're keeping them right on schedule. That's a local treatment. It does induce or can induce somewhat of a systemic immune response, but we're not really talking about anything that's like the checkpoint inhibitors.

Dr. Karsh:

Again, we have clinical trials for patients who have become unresponsive. But I plant in my patients early on, and I'm sure Dr. Lerner agrees, that we have to talk to these patients with high-risk disease up front. Tell them, "Look, it may come to a cystectomy, but we're trying to do things to try to delay that." Nobody's standing in line asking to have a cystectomy done.

Dr. Karsh:

Patients do want bladder sparing, but if patients are unresponsive to the BCG, then we will try, and they do not want to go on to surgery or we don't have a clinical trial, then we do offer the double chemotherapy with the gemcitabine and docetaxel. But if these patients continue to progress, eventually they're going to probably end up with a cystectomy, but we try to let them know that early on that this is always a possibility. But again, then we have the immunotherapy which has been approved, and so that's another option for us too.

Dr. Singh:

Yeah, so it's a good question that Dr. Lerner alluded to the risk of therapies themselves with the coronavirus infection risk. I touched upon it a little bit, but I would like to expand on it in the sense that patients need to understand that there are two broad classes of systemic therapy options for bladder cancer. One is the chemotherapy and one is immunotherapy. The chemotherapy, once the patient receives chemotherapy, that may impact their immune system and will lead to immunosuppression. At that time when their immunosuppression is at peak, which is usually seven to 10 days after their chemotherapy infusion, is when they're at highest risk of catching infections. Most of the patients who catch infections are the infections they catch from within. We have so much bacterial and viral load on our bodies ourselves and we may catch them, and these viruses or these bacteria may cause infections in those situations. However, if in that situation of immunosuppression we end up catching coronavirus infection, there is experience from all over the world which shows that these patients may have adverse outcomes.

Dr. Singh:

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On the other side, immunotherapy, we are not suppressing the immune system. We are actually helping the immune system identify their cancer cells better, and then lead to response. But unfortunately, an adverse effect of the immunotherapy is a situation where we call a systemic autoimmune reaction where the immune system may get activated towards one of your organ function, which may lead to an autoimmune damage to liver, lung, heart, or any other organ system. In those situations, we have to then suppress the immune system right away to avoid further damage which is usually by use of high doses of steroids or other immunosuppressant medication.

Dr. Singh:

That's the situation where the patient may end up in an immunosuppressed state and may have to visit the clinic or is admitted to the hospital, where they will become at high-risk of catching coronavirus infection which is very easy to transmit. That's where the risk between these two therapies lie, where the chemotherapy directly causes immunosuppression. Whereas for immunotherapy, to reduce or to treat the side effect, we have to induce immunosuppression using other drugs, where the risk of catching or having an adverse outcome with coronavirus may be there.

Dr. Singh:

We have these conversations in a very candid way with our patients. We explain them the risk, we explain them how they can reduce the risk. But if those are the options which the patients need, we are moving forward and the patients are receiving therapies at the clinic on schedule.

BCAN | Stephanie Chisolm:

Thank you. Thank you all very much. I know that there have been some questions that have come in to our office and there's a lot of buzz going on where they're using BCG as a vaccine to help see if it can protect healthcare workers. There are some questions that are coming in in the chat box as far as is this going to impact the supply of BCG?

BCAN | Stephanie Chisolm:

Dr. Lerner or Dr. Karsh, could you talk briefly about that, because that is a concern. I do want to mention that we are scheduling for later this month, a program with Dr. Kamat and Dr. Hegarty from Ireland who are both part of this trial and they'll be talking specifically about BCG, but could you just briefly mention this because this is a concern for a lot of patients.

Dr. Lerner:

That's a really great question. The background story is that if you look at particularly in Western and some parts of Eastern Europe, there are countries who have established population-based vaccination program for tuberculosis, so that's actually a very low dose of BCG. It's the same BCG that we give in the bladder, but a very low dose. It's typically given at birth, and then in some countries, they give a booster. But in countries where they have these population-based programs, there's a 10-fold lower incidence of COVID-19 cases and a 10-fold lower incidence of COVID-19 related deaths. So, what is that association?

Dr. Lerner:

BCG given as a vaccination and BCG in general have non-specific immune effects that can protect from a variety of respiratory infections, both bacterial and viral. There's a whole body of published science around this. The infectious disease doctors have seized upon this and there's been a big trial that's finished accrual of 1,000 patients in the Netherlands, and there's a very large trial being conducted in Australia with the target of 4,000 patients. We're very fortunate in the Texas Medical Center to have Andrew DiNardo, who's a physician scientist in infectious disease who has collaboration, an established relationship as an expert in TB vaccination, with the group in the Netherlands.

Dr. Lerner:

Andrew reached out to Dr. Kamat and myself, and there's also a group at Harvard, to basically put a trial together to vaccinate healthcare workers, just a standard TB vaccination in the healthcare workers that are on the front line. These would be the intensivists, the pulmonary doctors, and of course the nurses and the respiratory therapists who are taking care of these patients every day. I think as many of the panelists have said, keeping hopefully the rest of us safe. They're really the ones putting their lives, to a certain extent, on the line, and they're the highest risk.

Dr. Lerner:

They are the population that would be candidates for going on this trial, and it's a randomization to getting the live TB vaccination versus placebo and then there's a whole host of immune correlates that would go along with that. The end point is incidence of COVID-19 infections and then of course the severity and the outcome of those. This has really grown like wildfire because the urologists, we have a lot of experience obviously treating BCG, and so the infectious disease doctors have naturally turned to us as having some expertise to collaborate.

Dr. Lerner:

This is now many, many centers across the country are either putting their own trials together or using the trial platform that was designed in the Netherlands, and we're working. It's been very easy to get philanthropic support for this. The NIH is allowing current funded investigators to write supplements or for ancillary funds, and it's really growing like wildfire. Now, you asked a very important question, but wait a minute. We've talked incessantly about the shamefulness of a BCG shortage. My opinion is that it will have no impact on this. The reason for that is if you could use every little milliliter of a vial of BCG, you could vaccinate 500 people. In our trial, that's 375 patients. In the Harvard trial, it's 500, so you could do the math. We're not really going to take much of the existing supply.

Dr. Lerner:

I think as Dr. Karsh and others have mentioned, if you have an 81-year-old patient for example, I'll use one of my patients, a retired cardiologist who's gotten out to two years with BCG and interferon who's never recurred. I said, "Look, I don't want you coming in to the medical center. I think you've had the maximum benefit. We're going to stop your therapy." Now, you might argue that wait a minute, you keep telling everybody that they need three years of therapy, but I would do that anyway probably to manage my supply.



Dr. Lerner:

Now, that's not true everywhere. There are still centers, cancer centers, that are very low on their BCG supply. They should not do this study there if they're having to tap into a low supply. We're just fortunate that in our environment here in Houston with MD Anderson and Baylor, we don't have a shortage and it won't impact one iota of current patients or our future patients. It is somewhat individualized depending upon where you are, but it's a great question and we're very excited to be able to play a role in this. Hopefully, we'll see how it turns out.

Dr. Karsh:

Seth, I think that's very fascinating. I guess the question is does it matter what strain of BCG that you use for this? Can we go outside, or do we still have the constraints of the FDA using the Tice and ...

Dr. Lerner:

Yeah, so Dr. Karsh is probably asking two questions there. We're going to be using the TICE strain which is made by Merck, they're the sole supplier in North America. They don't have a separate vial say, for vaccination, because you use so little. Andrew DiNardo, the infectious disease doctor, got an exemption from the FDA to be able to use the intravesical strain for this particular trial.

Dr. Lerner:

There are discussions that have been going on and there's a company that is trying to bring the Russian strain into North America. The Russian strain is produced in India, it's used worldwide, and they're doing their due diligence to see if it could be used for this type of trial. I think we had the Tokyo strain that we're testing in a clinical trial from the Southwest Oncology Group and many other cooperative groups, and there's an interest there. But for right now, Tice is on the shelf and we can use it, and we have the go ahead from the FDA to use it for this purpose.

Dr. Singh:

I'm sure, Dr. Lerner, you must have mentioned that the one vial of BCG which is for intravesical may vaccinate how many, like 10 or 15, or more?

Dr. Lerner:

No, no, no. What I said is if you use every little milliliters. So you take a BCG that's reconstituted in 50ccs, and the vaccination dose is 0.1cc, so the math is you could vaccinate 500 people. I don't think you can use every bit. I mean, there's going to be some waste in there. So, in our trial of 375 subjects, we're going to be vaccinating between 180 and 190, theoretically, we could use one vial for all of them.

Dr. Singh:

Yeah. So, it basically doesn't impact the supply chain for BCG if you are just using one vial.

Dr. Lerner:

Well, I certainly don't think if we used one and even if we used two or three or even four. And remember, I'm sorry. This may be something unique to the Houston metropolitan area for example, where when we inquired about the available BCG from our pharmacists, they just immediately sent us

12 boxes, 12 vials. I think the comment was, "Oh, we have plenty of BCG." I guess I want to reassure the patients and their loved ones that we don't think that this is going to have any material impact on the supply whatsoever. Maybe we can play a small part, if the trials show that there's a benefit, from a vaccination strategy.

Dr. Lerner:

I think the public also needs to understand that this is not a vaccination against COVID-19. That's a completely different type of vaccination development. You've probably heard on the news that it takes anywhere from 12 to 18 months, but there's companies and the FDA are trying to compress that time. But this is not a vaccination for COVID-19, this is just taking the non-specific immune protective effects of a TB vaccination to see if it can protect healthcare workers or if they do get infected, have a smoother, less difficult course of the disease.

Dr. Karsh:

I might add, too, our supply chain has not been interrupted but we have changed the way that we do maintenance. We do our full dose for the induction. We do maintenance for a year now instead of three, and we use third dose so that we split one vial for three patients. We're able to get all the patients that need BCG our BCG because of this change that we made in the way that we administer it.

BCAN | Stephanie Chisolm:

Great.

Dr. Singh:

Let me ask a question to Dr. Karsh and Dr. Lerner. How are you dealing with induction BCG of patients who are getting, are you giving them the full course or skipping? How are you doing that?

Dr. Karsh:

We're giving them the six. They get an induction of six, full strength. Then after that when they get maintenance, which we'll do at 12 weeks and then do six weeks up to a year.

Dr. Lerner:

We're trying to direct most of these patients to a clinical trial where they're essentially guaranteed that they're going to get BCG. It's a randomization of what we've been talking about, the Tice strain versus Tokyo, and there's two arms of Tokyo, that's the Japanese strain. That's the best path for them to guarantee that they'll get BCG and have access to it.

Dr. Lerner:

Like Dr. Karsh, we're really trying to adhere to the schedules. Induction is six weeks then three weeks of therapy at three months, six months, and every six months thereafter. But as many people say on a daily basis, we have to be able to adapt to changes in terms of the COVID-19 pandemic, which are going to be different depending upon what part of the country that you're in. That's what we're doing for now and for the [foreseeable future].

BCAN | Stephanie Chisolm:

Well, we're at the top of the hour right now and on behalf of the whole bladder cancer community, I really want to thank you all so much, Dr. Lerner, Dr. Singh, Dr. Jhavar, and Dr. Karsh. This has been very informative. Thank you all so much for sharing your time and expertise.

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