Host: Dr. Sam Chang joins us this morning to discuss how his institution is managing cancer care during the Covid-19 pandemic. Dr. Chang is the Patricia and Rodes Hart Professor of Urologic Surgery and Chief Surgical Officer at the Vanderbilt-Ingram Cancer Center. Dr. Chang, how are things in Nashville right now?

Dr. Chang: Well, we have a little bit of the buildup, obviously. We're not quite as Governor Cuomo would say, "We're not at our apex." We definitely see that coming in the next week or so. We've been, fortunately, very aggressive and our leadership at Vanderbilt has really started proactively and our preparation at this point is good in terms of preparation with bed space, ventilator capacity. But as with everywhere, we're working on preserving our PPE for our workers. The mayor of Nashville, fortunately, has been really on, quite aggressive with stay at home policy and social distancing. I don't want to get political, our governor in the state has been somewhat behind on that. So as a city, I think Nashville has done as good a job as any major city in terms of social distancing and following the CDC and the guidelines.

Host: What are some of the key considerations for your logic oncologists when it comes to caring for patients with urologic cancers as we fight the spread of Covid-19?

Dr. Chang: Well, this is an incredibly difficult situation for caregivers and patients. It's a combination of weighing the risks of the cancer, weighing the risks of therapy, and then weighing the risks of possible infection with the Covid virus. You have a combination of issues. We have not only clinic visits to consider, but therapeutic visits such as intravesical therapy for bladder cancer, you have diagnostic evaluations such as prostate biopsies and cystoscopy. In the way that also with surgical therapy for certain cancers that are really more necessary than others. And then you worry then for the patients not only as they come in, but balancing, "Well, what about if they did get an infection?" There clearly is data that the perioperative risk of having a positive Covid infection really increases the perioperative morbidity associated with that procedure. And the risk of having a Covid infection during the time of convalescence really increases the likelihood of significant morbidity.

Host: Dr. Chang, how have you had to modify care plans for prostate, bladder, and kidney cancer patients at this point?
Dr. Chang: Yeah, that's a really good question and one that many different organizations and groups, health centers have come up with a variation of recommendations. And it's a combination like I've said before, of the risk of the disease, the risk of the therapy, and the risk of actually either transmission or receiving or actually getting infected with the virus. So, let's start off with prostate cancer. Clearly, prostate cancer is one of our most common cancers that we treat, but we also know that the vast majority of patients really are those that are ones that in all honesty can have some delay without any significant issue or concern. And so, when it comes to evaluation with new consultations or for followups for patients with either PSAs that are elevated, and/or low-risk disease, or even intermediate-risk disease, we are delaying these appointments for at least 8 to 12 weeks at this point if not longer, especially for those patients who've already received therapy, and/or on active surveillance.

For those patients then with high-risk disease, and by that I mean at least a Gleason 8 and above or a very elevated PSA, it's a combination of balancing, "Okay, do we have the capacity to perform surgery?" We have the capability of accelerated radiation therapy and with SBRT, and our radiologists have actually, with the Astro guidelines, have actually moved forward with actually accelerating their doses of therapy with the third option being, patients can be temporized with use of androgen deprivation therapy for anywhere from three to six months. And so, for certain areas that are obviously hardest hit, those are areas where all surgeries like this are actually not allowed and are not on the books for preservation resources for those that are most ill with the virus. For those areas of the country that are canceling "elective cases" and are performing only urgent cases, then there is consideration of doing those high-risk prostate cancer patients in the operating room, but we personally, Vanderbilt have stopped doing that. And so, the majority of these high-risk patients are either getting temporized for a period of time or receiving radiation therapy. That's prostate cancer. Importantly, and I think this is something that everyone needs to understand as well, is the role of prostate biopsy. And this the one where we have really had not much debate, and those patients that are scheduled for a biopsy, we're actually delaying the biopsy 8 to 12 weeks. At this point, we do the vast majority of our biopsies via transrectal ultrasound route as opposed to transperineal, but even those patients that we perform a transperineal biopsy, at this point, we are delaying that to avoid use of resources as well as protective gear.

When it comes to bladder cancer, bladder cancer is one that is definitely...there's been discussion with experts and leaders across the world on what's the best treatment options, what should we do for those patients within terms of initial evaluation with [inaudible 00:06:20], of pain, of retention, those
types of things. The recommendation and the thought process has been these patients should go ahead and receive and undergo at least a diagnostic cystoscopy. Those patients early on in their disease course that have high-risk bladder cancer, the thought is then to proceed with their cystoscopies and their evaluation. For those patients with microscopic hematuria, or with low-risk bladder cancer, then we, and many have recommended delaying evaluation for at least three months. And that's something that we've also recommended.

For intravesical therapy for those patients with high-risk non-muscle-invasive bladder cancer, who are in the middle of their induction therapy, we have advocated proceeding with and continuing their intravesical therapy. However, anyone with maintenance therapy, and/or who have intermediate-risk disease, we have actually not given the maintenance therapy. We have, giving higher-risk, intermediate-risk patients have proceeded with intravesical therapy, but again, it's one of those balancing acts because in those patients as well, you need to understand and consider, what about the issues and what about the role concerning whether or not they are elderly, which is the vast majority of these patients. And so, we have to balance the threat of the cancer with the threat of an infection. And so, for those patients with intermediate-risk disease who are elderly, or who have significant comorbidities, and the vast majority tend to have a combination of those, we have delayed therapy.

For invasive disease, this has been a debate, again, amongst many individuals and institutions, but we have tended to, for those patients with muscle-invasive disease, and/or who have high-grade non-muscle-invasive disease, we have advocated proceeding with either a TURBT for the higher risk patients or proceeding with cystectomy for invasive cancer patients, or those with varying histologies, or those who are quite symptomatic. Understanding that also, our preference for invasive disease would be to initiate new [inaudible 00:08:44] chemotherapy and avoid the use of significant PPE requirement, and ventilator requirement, and anesthesia requirement. And so, our preference would be neoadjuvant chemotherapy followed by cystectomy down the line. But clearly, these patients are higher tier, or the highest priority, and are those that we would consider proceeding with cystectomy although neoadjuvant chemotherapy is our first choice.

Then if you look at the third most common cancer that urologic oncologists and urologist treat would be kidney cancer. And for the vast majority of individuals with smaller renal masses, we have actually delayed initial consultation and evaluation. For those with renal masses less than 4 centimeters, we have actually deferred biopsy, we have deferred initial evaluation of actually repeat scheduling of evaluation in a few months, and have saved resources in that way with the likelihood of developing something worse or metastatic being quite
small. For those patients with larger lesions, greater than 7 centimeters, or who are symptomatic, we have advocated proceeding with, and they are at the category of highest risk, and proceeding with therapy which would mean nephrectomy. We have not, and we have delayed those patients with smaller renal masses that were scheduled for either thermal ablative therapy, or have been scheduled for partial nephrectomy, those patients have all been delayed at least two to three months. Again, for followup, those patients that have been in followup, we have actually delayed their visits as well two to three months.

With all three of these cancers, we've utilized telemedicine as much as we can or telephone visits. And everyone, I would say, or the vast majority have been very understanding of the situation. But clearly, it is a difficult one where we balance, again, the risk of their actual diagnosis, their therapy, and risk of actually catching the virus.

**Host**: How's research and clinical trials being impacted by this Covid-19 pandemic at your institution?

**Dr. Chang**: It's been very, very difficult. We have stopped enrollment in any new clinical trials, or have actually stopped initiating any new clinical trial at this point for saving resources in the clinical trials that we have opened for those patients who have limited therapeutic options. An example would be our high-risk non-muscle-invasive bladder cancer where an alternative only would be to go to cystectomy, or in those patients who have high-risk disease such as high-risk or a metastatic prostate cancer. Those patients currently in trials are continuing their visits and continue their evaluation. But we have suspended, again, initiating any new trials. And new patients are only...those patients are being screened. If we can actually give an alternative that may utilize resources that are sorely needed at this time.

**Host**: Any other advice for the urologic community as they manage cancer care during this uncertain time?

**Dr. Chang**: Everyone is pitching in. I think everyone would understand that the utilization of the entire team of nursing staff, of residents, of your partners, and then most importantly, of those that you may not recognize as well, the scheduling staff, the MAs, the folks that actually help transport patients, all those individuals are an important part of evaluating all our patients. Everyone has been, I think, understanding the importance of teamwork. And so, as a result, we've attempted to actually change our scheduling so that people are limiting their own personal exposure. We're chipping in and seeing patients that we normally wouldn't see in order to, again, minimize exposure to not only ourselves but to our patients. But also, attempting to risk-stratify so those
patients that get care, get the best possible care, and at the level of quality that we've always provided. And so, again, it's teamwork first, and understanding, again, that we're in this together.

**Host:** Dr. Sam Chang is the Chief Surgical Officer at the Vanderbilt-Ingram Cancer Center in Nashville. Thanks for joining us this morning, Dr Chang.

**Dr. Chang:** Thank you again, Casey. Everyone, please stay safe.