

The Multidisciplinary Team Approach to Bladder Cancer

University of Washington / Seattle Cancer Care Alliance

with Drs. Petros Grivas, Jonathan Wright, Jay Liao

BCAN  
Bladder Cancer Advocacy Network

## MEET THE PRESENTERS



Dr. Jonathan Wright is the medical director of the University of Washington Medical Center Urology Clinic, and an associate professor of urology. He's also an affiliate investigator at the Fred Hutchinson Cancer Research Center. Dr Wright completed his MD at the University of Washington and he's a member of many professional organizations including the American Colleges of Surgeons. He serves on the executive board of the Washington State Urology Association. Dr. Wright is also a member of the National Comprehensive Cancer Network Bladder Cancer Clinical Guidelines Committee.



Dr. Petros Grivas is an oncologist at the Seattle Cancer Care Alliance. He's the director of the University of Washington Medicines Genital Urinary Cancer Program and a UW associate professor in oncology. Dr. Grivas earned his MD and PhD at the University of Patras in Greece. He's board certified in oncology and internal medicine and he lectures internationally, and pursues community outreach, lead studies and has published his novel research.



Dr. Jay Liao is a radiation oncologist at the University of Washington Medical Center and the Endocrine Tumor Center at University of Washington Medical Center and the Seattle Cancer Care Alliance, Proton Therapy area. He's an associate professor of radiation oncology at the University of Washington. He earned his MD at University of Michigan. His clinical and research interests include skin cancer, melanoma and head and neck cancers as well as genital urinary cancers.

**Dr. Grivas:** The objectives of today's webinar include an introduction to the infrastructure of our University of Washington in Seattle Cancer Care Alliance, Bladder Cancer Multidisciplinary Clinic (BCMC) that is consisted of urology, medical oncology, radiation oncology, pathology, radiology, and a number of other professionals and experts in colleagues, coordinators, nurses et cetera, who conform a team that brings together different expertise and experience. We're going to all show review simulated patient cases as examples just to highlight our multispecialty disciplinary approach in the clinic and give an idea of how we function as a team together at the same place, at the same time. We're also going to highlight some very interesting clinical trials. It's not an exhaustive list, but definitely a representation of what is happening right now in the field of bladder cancer. And I think it's really important to highlight the exciting research, which is very relevant to a patient scenarios and patient experience.

## Treatment options



I would like to start by discussing overall the landscape of treatment options for patients with bladder cancer. As you see on the left part of slide, we definitely consider surgery, specifically radical cystectomy, as one of the cornerstones of treatment for patients with bladder cancer, as well as patients with upper urinary tract urothelial cancer that originates in the kidney pelvis, or the ureter, and also rarely cancer of the urethra can also be treated, with multimodality approach, surgery can be part of it.

Dr. Wright is one of the main representatives from the urology team, who have a very robust team of a well-qualified expert surgeons who know bladder cancer in and out, and definitely communicate with us to try to find the best option for the right patient, at the right time.

On the middle part of this figure is what we call systemic therapy. The term systemic therapy has to do with the idea that the drugs are agents that we use that are given in the whole body, the whole system. It's not a focal treatment as opposed to surgery or radiation, which applies to one part of the body, but goes into the entire system, entire body, so we call it systemic therapy. There are various examples of systemic therapy, the most common of which is chemotherapy, and we're going to discuss a little bit about that. Chemotherapy has to do with the introduction of chemical agents that target cancer cells, and they have various ways that these drugs work, and the goal is to kill directly cancer cells.

Chemotherapy for muscle invasive bladder cancer is usually given through the vein IV, but there also some oral medications that can be chemotherapy agents. But for bladder cancer, most chemotherapy is given through the vein intravenous administration. Now very briefly to mention that chemotherapy could be given inside the bladder, this is intravesical, not intravenous and there are very particular situations where this might happen especially for superficial forms of bladder cancer, what we call non muscle invasive bladder cancer. But chemotherapy is usually intravenous, goes into the whole system, systemic therapy. There are other examples of systemic therapy, like immunotherapy, we're going to give some examples in the next few slides about how immunotherapy works. In one sentence, it can stimulate the immune system, so it can indirectly target cancer cells by triggering and augmenting the immune system response. So the components of the immune system can go out there, identify, discover and kill cancer cells. The other therapies that go in the whole system like orally administered agents or intravenous administered agents, that are targeting specifically genes and proteins in the cancer cells,

we call these targeted agents, which are kind of a magic bullets scenario that try to target specific elements of the cancer cells. And of course, we have bone directed therapies as well as other approaches that go through the whole system, inhibiting new blood vessel formation, et cetera. So all of those agents go under this category of systemic therapy.

Radiation therapy, which Dr. Liao is the expert on, is a very important modality, which has been used more and more nowadays, and has particular indications. In our third case, we're going to show you examples of how radiation therapy is being used and having multiple advances in the field. Dr. Liao can comment on that about how radiation therapy has become more safe over the years, more targeted and how we utilize technology in order to enable safe and optimal delivery of radiation therapy. We're going to show you some examples of that to inform our own practice. All these specialties are very important, and all together have the right application for the right patient.

So overall, I would say that bladder cancer management represents an unmet need, a highly unmet need. As you can imagine, there's a variety of complex decisions that need to be made for patients with bladder cancer and urothelial cancer. We have to make sure we have an accurate diagnosis, and are taking into account history, physical exam, radiology imaging findings, pathology. We have to make sure we have adequate clinical staging, cystoscopy, looking at the bladder is part of that. Deciding what the appropriate modality of treatment, chemotherapy, radiation surgery, combination or sequence of those modalities is important.

What we need nowadays is to find biomarkers, which are some clinical or biological factors, that enables us in the future, help us select the right treatment for the right patient, at the right time. Many patients have multiple complex needs, other medical issues beyond bladder cancer, we'll have to take into account, as we say in the clinic, we treat the patient, not only the cancer but then entire person. And we'll have taken by account all physical, socio, psychological, beliefs, expectations, all the aspects of your personality as well. Many physicians and providers are part involved in this multidisciplinary care.

So, the question is, how do we align and form a care team to provide the best treatment for the right time, for the right patient?

### University of Washington / SCCA Bladder Cancer Multispecialty Clinic



Comprehensive inter-disciplinary care:  
Communication is key between patients, caregivers, medical teams

#### Timeline

#### Participants



- Physicians**
  - Urology
  - Medical Oncology
  - Radiation Oncology
  - GU Pathology
  - GU Radiology
- Nursing**
  - BCMC Nurse Practitioner
  - Ostomy Nurse
  - BCMC Nurse
- Others (available)**
  - Program Coordinator
  - Physical Therapy
  - Nutritional Services
  - Social Worker
  - Psychology/Psychiatry
  - Research/Clinical trial coordinators

**Jonathan Wright:** Thanks Dr. Grivas. As Dr. Grivas mentioned, it's a huge challenge to manage all of the challenges that bladder cancer patients and clinicians face. And so what we set up now five years ago is called the Bladder Cancer Multispecialty Clinic (BCMC). Our goal was to bring all of the teams together in one place, at one time with the patients. Now clearly, this isn't

feasible at every place, but we set up this model and have found it to be a very highly functional for both us and for the patients. You can see on the timeline where we started out doing it bi-monthly wasn't long before we had to add the fifth Tuesday. And then for the past two plus years we've been doing this weekly and are talking about expanding it even further.

As Dr. Grivas highlighted, there are a number of different groups participating in this. We have the urologists, the medical oncologists, radiation oncologists, and this is crucial. We involve specific expertise in pathology and radiology, but we're able to actually look at the biopsies. Many of our patients had biopsies done at another site and then are referred in for evaluation. We review those in real time. We look at the X-rays, CAT scans, et cetera that have been done. As Dr. Grivas mentioned, we have several nursing team members that are available and lots of other services, that truly is a team approach to taking care of bladder cancer patients.

This is how the schedule is set up. A patient arrives and for the first hour there is a history and physical done. This could be done by one of the faculty, one of the physicians, one of the resident training doctors, or a fellow. And then the patients are actually given a break for an hour. And during that hour is when we all sit together in one conference room, go through each case, go through each X-ray, each biopsy and take a look together and try to figure out what the treatment options are, and see if there's a specific recommendation, or a couple of different treatment options to propose to a patient. Then for the last two hours, it is a half day clinic. Patients are seen by each one of the services, radiation oncology, medical oncology, and urologic oncology, and we engage other services as well, stomal therapy and physical therapy as needed.

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Bladder Cancer Multispecialty Clinic**



BCMC Schedule	
8:00 – 8:50	H&P (resident, fellow, or faculty)
9:00 – 9:50	MD Conference: Case Presentation Radiology review Pathology review Discussion
10:00 – 12:00	Patient seen by: Each service (faculty) Stomal therapy (if indicated) Physical therapy (if indicated)

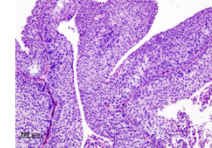
But this is the basic system that we've set up for what we call BCMC.

**Jay Liao:** It's been really exciting seeing the growth of this clinic over the years. Typically radiation oncologists, in many settings have had a more ancillary role in the management of bladder cancer. And I feel like it's probably been underutilized where there are many cases of where a radiation oncologist role for radiation could have a larger role. So recently we looked at the outcomes of some of our patients that were referred from outside institutions, and we took a look at 201 patients that we saw over the course of a number of years from 2014 through 2017. We were looking at how this experience with the BCMC helped to impact on patient care.

**Review of our Initial BCMC Experience**



- 201 patients with bladder cancer referred from outside hospitals from 2014 - 2017
- After BCMC review:
- Imaging interpretation changed in 24%
- Pathology interpretation was changed in 29%
- Further diagnostic workup was recommended 41% of the time



So after review in BCMC clinic, we found that there was a significant number of situations or where there was a change in interpretation of imaging findings, whether CT scan or MRI Scans, PET scans,



about 24% of the time, which was about one in four patients. We also have expert review of pathology that we do in real time with our genital urinary pathologist at the same time as the clinic is conducted. From this review, there a significant proportion of cases where the pathology had a significant change in interpretation about 29% of the time. Many times this would lead to recommendations for additional diagnostic workup, whether those labs or biopsies or additional scans, about 41% of the time.

## Review of our Initial BCMC Experience

- After BCMC review:
- 27% had a change in their clinical staging
- BCMC recommended modification in treatment in 60%
- Subsequent treatment plan implemented was concordant with BCMC recommendations 92% of the time

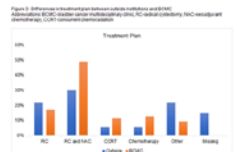
We found that this made a big difference

as far as what the ultimate treatment recommendations were for patients, and the actual staging compared to the initial impression was changed about 27% of the time, which can make a big deal as far as the overall treatment recommendations for patients. This led to an overall modification, and the overall treatment plan more than half of the times, about 60% of the time. What we realized that many patients may live far away and wouldn't necessarily be able to have treatment with us. We try to coordinate with the referring teams, and the care teams locally to help to convey what our recommendations are, if folks end up having treatment closer to home.

Fortunately, subsequent treatment plans for what was recommended was most of the time consistent with our recommendations from BCMC clinic, the vast majority of time, about 92% of the time. So we found that this experience really made a huge impact on patient care, and we hope leads to improved outcomes. We found that a couple of notable things stood out, there was a recommendation for the addition of neoadjuvant chemotherapy, which is chemotherapy before surgery. A larger proportion of cases compared with the initial recommendations where we offered more often bladder preservation treatment. So the utilization of chemotherapy and radiation as alternative to surgery or radical cystectomy.

## Review of our Initial BCMC Experience

- BCMC resulted in critical radiology and/or pathology diagnostic changes in a significant number of cases
- Treatment plan was modified in many patients
  - Recommendation for neoadjuvant chemotherapy made more often
  - Offered option of bladder sparing chemoradiation in more patients
  - In some cases, palliative treatment course felt to be most appropriate rather than definitive treatment
- Impact of these changes on treatment response and outcomes is being closely evaluated



This overall with the patterns or practice is not done as widely in the United States as in some places. And it's something that we could probably do more in select patients that are good candidates for this. In some cases, the overall game plan with the patient was modified as well. There is a change from what was felt to be possibly a curative treatment where we felt it was more appropriate to provide palliative treatment or supportive care. So we definitely have been finding that there's a big change in practice

recommendations, and we're going to be looking closely at how this hopefully helps to improve treatment outcomes for patients.

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