Voices of Urology: Managing Urologic Emergencies During the Pandemic

Host: Back here on the "AUA Inside Tract" podcast, as hospitals prepare for the worst during the COVID-19 pandemic most have postponed or canceled non-essential surgeries and are taking steps to preserve supplies of PPE. Dr. Ben Davies joins us now to discuss this. He is a professor of Urology at the University of Pittsburgh School of Medicine in Pennsylvania. And Pennsylvania took early steps to minimize COVID-19 transmission and closed non-essential businesses and schools nearly two weeks ago. So, what are you currently seeing at your hospital and how has the COVID-19 pandemic impacted urology in Pittsburgh?

Dr. Davies: Our governor, Governor Wolf, was very quick to bring non-essential businesses to close for almost two weeks now. And we've been in shelter in place for about five days. If you look at the curves out of Washington and out of New York, this was relatively quick action when you compare how many cases we've had. So, we're hopeful that Governor Wolf's actions will really flatten the curve out in terms of incidents here. At the present time, we have about 150 cases of COVID in our community around Pittsburgh, and we've had about 40 hospitalizations and something like 10 ICU patients and 2 deaths. Unfortunately, there's about a two-day-doubling of cases. So, we're just entering our steep part of the curve. And we're guesstimating that we're going to see a lot more cases as the week to week and a half comes by. We don't really know what trajectory we're going to be on. Are we going to be on the Taiwan trajectory or Japan trajectory? If you look at the graphs, they fall off quickly with good shelter in place and masking. We're just not sure, we hope that's the case. We've certainly been quicker than other cities around the country, so we're hoping that we're going to be ready for the storm when it happens in a week and a half or two weeks.

Host: What other specific measures has your team taken in preparing for the influx of COVID-19 patients?

Dr. Davies: I guess we've thought about it in two ways, and I think most departments have. We have a sort of resident issue, both education and how we're going to use the residents. And then we have sort of our clinical issue. And we're pretty quick to pass around between the attendings and then what cases we thought were split up between emergencies, essential and elective. And relatively quickly, despite some of the media attention on our institution, we stopped elective cases relatively quickly last week, and now we're doing
essential cancer care. There's been quite a few guidelines put out there. We've sort of looked and appreciated the European guidelines first, and some sort of local input, obviously. And really small kidney cancers are not being treated, low and intermediate risk prostate cancer by and large, not being treated, and really just concentrated our care to muscle invasive bladder cancer surgeries and large kidney tumors, which isn't that much. Once you take away the other parts of our practice, we're probably going to do two bladders this week, and next week, I've decided to keep up our clinical trial work, so, we have a [inaudible 00:03:05] two prostate cancer trial. I've decided to do that for those cases which there aren't many, but we have one next week.

So, we've pared down. And I think the idea of paring down is multi-pronged. It's not only preservation of PPEs, it's also there's some swirling science of operating with COVID patients that we don't understand. I'll give you an example. It's pretty well understood the transmission of the virus happens about 50% of the time with asymptomatic patients. So, we very well could have a patient come into the hospital, and this happened in Wuhan and in Milan, who, with no symptoms, who has COVID and spreads it to the hospital staff relatively easily. Obviously we don't want that to happen. And just this morning, I read that in Boston up to 100 workers in the Brigham, I believe it was, have COVID. So, we don't want that to happen. And we don't really have the testing capabilities yet to test all patients who are having non-essential surgery or essential surgery. So, we are trying to get that amped up from a system perspective, but we simply don't have the testing capabilities as yet to do that. So, we are at a standstill with a lot of our cases. We're trying to be thoughtful about what we do.

In terms of residents, we've gone to a system where we really paired down resident exposure, and it's really, the residents are either doing non-clinical care or clinical care, and the clinical care, obviously, consults need to be taken care of. The few surgeries that we're doing, we're still having residents there. But the non-clinical are on sort of this educational track, and I believe we're doing it every other day, I'm sorry, every other week so that there's a full week rest and back on clinical. So, that's where we are kind of preparing for the onslaught we think we're going to see in the next few weeks.

**Host:** What about establishing COVID-19 zones and things of that nature within the hospital? Can you tell us anything about that or what you guys are doing there?

**Dr. Davies:** Sure. So, there's been lots of different models for how to take care of COVID patients, not urologic specific, but I'm sure you're aware of that in parts of Italy and definitely in Wuhan, they had specific hospitals designated as
COVID hospitals. Our leadership has decided not to do that in part because our hospitals are quite spread apart and it wouldn't really be very efficient for us to do that. So, each hospital has designated areas where COVID or rule out COVID patients are going to go to and there'll be other parts of our hospital currently now that are non-COVID areas. So, it's kind of parallel tracts of care speciated by COVID or ruling out COVID versus not. So, that's how we're going to do it. And it may be a case scenario where we become overwhelmed at certain hospitals that need to be all COVID and then we'll try and divert emergencies that aren't COVID related to other hospitals. It's kind of a moving target. And I'm not really at the upper level conversations, I'm at sort of a, I call it, the second tier. But we're trying to deal with it the best we can and trying to learn from the other institutions that see the problem before us so we can be prepared.

**Host:** And we've heard stories about ERs overrun with COVID-19. Any other thoughts on how this impacts patients with urologic emergencies?

**Dr. Davies:** We are hoping that our population density and our early quarantining or shelter and placing that won't happen to us. We already have a few places around the city that have been designated as potential places where over capacity patients will go to. But I think as far as urology patients are concerned, we've been pretty proactive about telemedicine and phone conversations. And I think the few emergencies that we've had in the past few weeks we've been able to take care of without a problem. What we're worried about is if our ORs are taken over and become intensive care units. Thankfully, to be honest, as your listeners fully know, the urologic emergencies are relatively infrequent. And I don't think that the absolute numbers will overwhelm our system, that would be, I think, rare. Maybe we'd be more conservative about stenting, more outpatient pain management if we can't keep patients from coming to the emergency room. I think that's going to be our approach, though we're relatively aggressive about doing that now.

I don't think our patients need to worry about specific emergencies. Things like torsion, masses that are palpable, stents that are needed to be placed for pain or infection, I think we'll be able to manage that. And those surgeries are very quick. So, I can't imagine we'd be in a situation where we couldn't manage that. And part of my role here, I do help manage the operating room. And we have designated operating rooms for COVID positive patients, we have yet to use them but if we need to, we have that set up and ready to go. I think we're as prepared as we can. I mean, one thing that we don't know is how many we're going to get. If our current community rate of infection keeps in this current trajectory, we're hopeful that we'll be able to meet the demand if our in-shelter preparations flatten out.
**Host:** Is there anything else on your mind about how this pandemic is impacting clinical trials and research that you want to touch on?

**Dr. Davies:** I mean, it's definitely impacting our clinical trials in part because we don't want our patients being exposed. And we're not going to actively recruit patients during the pandemic to any number of trials we have going on. I'm going to keep doing the surgeries that we have already randomized to. But I can imagine recruitment's going to be a problem. And it's also important to remember that there's good data, or relatively good data from Italy, showing that cancer patients are disproportionately affected by the virus, something like 30% to 40%. Their course is also disproportionately poor, so we want to protect our cancer patients as best we can. And how we do that is by keeping them outside of the hospital best we can. So, I see the clinical trial recruitment being a big problem, and I don't think it's really in the forefront of our mind as we prepare what we expect to be a lot of COVID patients in the next few weeks.

**Host:** Do you have any other final takeaways for our audience?

**Dr. Davies:** I don't have any specific but I do think most urologists in major urban centers like I am, are preparing for, or will likely be non-urologic care. So, brushing up on how we can help our emergency room colleagues with non-COVID patients. I know that I'm probably going to be either in the emergency room helping out with surgical issues, traumas, anything that we can kind of help our colleagues with their workload. I suspect that's in our near future in the coming weeks and hopefully, God willing, in one to two months, we get over this and get back to our normal urology lives.

**Host:** Dr. Ben Davies is a professor of Urology at the University of Pittsburgh School of Medicine. Thank you for joining us today, Dr. Davies.

**Dr. Davies:** My pleasure, Casey.