

**Host:** Greetings and welcome to this evening's webinar titled *Nurses and Nurse Navigators in Metastatic Hormone-Sensitive Prostate Cancer Patient Care*. We would like to thank AstraZeneca for supporting this webinar. Today's webinar will be moderated by Frank Dela Rama and Kathy Bowman. It is now my pleasure to introduce Frank Dela Rama, who will be getting us started this evening.

**Frank Dela Rama:** Yeah, so welcome everybody. Happy to be here with my fellow nurse navigator colleague, Kathy. A little bit about myself... I've been an oncology nurse for a little over 25 years now. But in 2004, I started ~~my~~...one of the new roles back then, as a prostate cancer nurse navigator, so I've been working with mainly newly diagnosed patients to help them get through the process. In the middle of all that, I got my master's in genetics, and so, as of 2006, I added genetic counseling for *BRCA*, for Lynch syndrome, to what I do day-to-day. And so, you know, I've been involved in genetics and genomics with prostate cancer for quite a while. But Kathy...

**Kathy Bowman:** Hi, I'm Kathy Bowman. I started my career in the operating room, so I did a lot of urology surgery during that time. Did that for about 13 years, and then, I've been a nurse navigator for 18 years. I've done GI, breast, and now I'm in the urology forum for the last 3 years. So, glad to be here.

**Kathy Bowman:** So, today's topics of discussion, around metastatic hormone-sensitive prostate cancer care, we're going to focus on biomarker testing in prostate cancer, and monitoring and managing prostate cancer treatment-related side effects.

**Frank Dela Rama:** But today, the focus is, you know, looking at navigating our patients, especially these with metastatic hormone-sensitive prostate cancer. We're focusing upon the role of the nurse navigator. You know, what can we do to help them along the way? You know, we may deal with biomarkers every day, we may deal with it once in a while. I think all of us, like me and Kathy even, we have different roles when it comes to dealing with prostate cancer care and biomarkers and side effects, and so I know in my role, again, newly diagnosed, I'm helping a lot of the guys with biomarker testing, maybe like the tissue specific to Cypher or Polaris, to figure out what their risk is, and then day-to-day, I'm helping them with, you know, I help a lot of patients with the *BRCA*, or the *P10* mutations, which could be inherited, but they can also be found in the tissue. If we find them in the tissue, maybe we think that's a little bit more aggressive, we can throw more treatments at that. And, so I think, I think Kathy has a different role, when it comes to touching upon these subjects. Right, Kathy?

**Kathy Bowman:** That's correct. I work more on the medical oncology/radiation oncology side. So with the urologist, I don't have as much contact with the prostate patients up front, but once they are advanced or need additional hormone therapy, then they come my way.

**Kathy Bowman:** So this [slide] shows the prostate cancer journey, going from screening to survivorship. Today we're going to focus more, again, on the biomarker testing, and the adverse events, side effects, monitoring, and management.

**Frank Dela Rama:** So let's get into this first topic, you know, biomarkers and prostate cancer. You know, just as a reference, you know, what is a biomarker? You know, biomarker is just like something we can measure, a biological substance or characteristic that provides, you know, objective information about the presence, behavior, or progression of the disease.

A lot of us in prostate cancer know about the global PSA, so that's a biomarker just to kind of track the activity of perhaps prostate or prostate cancer.

Risk stratification is another thing that we use biomarkers in, with, for example, with the Decipher Prolaris, and also with the tissue-based test as well. And another biomarker, which is you know, pretty popular now is the prostate-specific membrane antigen, which we do...we use that in scans, but there's some treatments now that we can offer related to biomarkers. I'm sure, Kathy, you deal with some of that as well.

**Kathy Bowman:** That is correct. Yeah, we mostly use the Prolaris testing. I know in urology, they use Prolaris, and they're starting to use some Artera A1. Some of the younger urologists, I believe, are using that. But the older ones say they still like the good old Prolaris, so that seems to be what I'm seeing more so every day, right now, anyway.

**Frank Dela Rama:** Right, right, yeah, so everybody has a different practice, and definitely we can help support the doctors and the patients when it comes to biomarkers.

**Frank Dela Rama:** You know, this is an overview of the subjects we're going to cover today when it comes to prostate cancer biomarkers. We're going to go over, you know, the landscape of where we were, where we are today. Again, we're going to hit upon the role of the nurse navigator. How can we help through this process? There's roadblocks that, you know, navigators deal with roadblocks, and so there's definitely some roadblocks that we can help address or minimize the barriers there. And then we can kind of put it... frame it into perspective. You know, what's the importance? How does this affect the treatment? Is the prognosis worse or better when it comes to certain markers?

**Frank Dela Rama:** Timely biomarker testing is going to be important, because we want to get that information as soon as we can use it, or maybe even before we need it. And there are disparities. And just like in cancer care, there are disparities that we'll kind of point out, moving forward.

**Frank Dela Rama:** But when it comes to the biomarker, prostate cancer biomarker testing landscape, I know me and Kathy kind of started in the early 2000s, and so back then, I think the only biomarker we were dealing with day-to-day was the PSA. So that's a biomarker where we, you know, is there cancer there? Has it come back? And so that's what we were looking at. That was mainly between maybe 2000, 2010. Then we started getting these molecular and genetic tools. You know, Kathy mentioned the Prolaris. You know the early-stage prostate cancer patients can get that done on their biopsy tissue to figure out if they're candidates for

active surveillance or surgery, or maybe we need to do hormones and radiation. There's the cipher, which we use in our practice, and so there's definitely those risk tools that became available. And then the sequencing genetics and genomics. And so, most people think of genetics as just the inherited risk. You know, prostate cancer patients are lumped into the *BRCA1* and 2 kind of criteria.

**Frank Dela Rama:** Finding a germline or genetic mutation in someone is pretty rare, but if we look at the prostate cancer tissue, especially metastatic, we may see *BRCA* you know, pretty commonly, maybe we need PARP inhibitors. We may see PTEN. Maybe we're going to need to use a little bit more, because the risk is there, and there's AKT inhibitors that we can use, and so I think we're getting to be more of a precision medicine with biomarkers, and so we're really able to stratify the cancers a lot more, and we can figure out what treatments we can offer. We can offer targeted treatments as well. I think you've kind of seen that over your career. Right, Kathy? In the landscape of biomarkers.

**Kathy Bowman:** Exactly, and like you mentioned, the *BRCA*, when I worked with breast, of course, you know *BRCA*'s a thing in breast, you just, you know, that's definitely something we look at. But, in prostate as well, I had a patient that, we had signed up for him starting the Pluvicto treatment, which when it first came, he's one of our first ones. So when it first came out, that was one of the I guess you'd call it one of the last lines in treatment for prostate cancer, and so we were working him up, for Pluvicto. But, in the interim, the medical oncologist went back, and he had further testing, and ended up being *BRCA*-positive. So, we put the brakes on, for the Pluvicto, and he was on a PARP inhibitor for several months, and so that at least gave him, you know, some more time. We were able to start the Pluvicto once he started showing too many side effects from the PARP inhibitor, but, you know, it was beneficial for him as, again, it gave him more time. So we, yeah, definitely look at that.

**Frank Dela Rama:** Right, yeah, yeah, for sure. And the thing that, again, we think about *BRCA* and other genes as maybe that's just inherited, but definitely sometimes I've seen it where we find *BRCA* or something on the tissue first. And then we send them the genetic counseling, and then they discover something like your patient, where it's actually germline, and so it kind of, again, tailors the treatment. So the landscape has definitely changed over the past 20, 25 years.

**Frank Dela Rama:** So, how can we help, you know, nurse navigators, as with cancer care in general. We're already helping through the process. What about, specific to biomarkers, right? We can... if we think about it from beginning to end, we can help identify the patients who need biomarker testing. We can, you know, maybe decrease those barriers for that type of testing, or streamline the process getting the tissue, getting the blood, getting the sample, to maybe it's a lab that's off-site. That's something that we can help with. Getting the results, you know. Sometimes it's not a quick, not imported into the EMR, maybe you gotta get a fax or two, or log in a portal, make sure the doctor and the nurses all get the report, or scan it into your EMR. That may be your role at your facility, you know, communicating these results to the provider, also to the patient. I think a lot of patients will get their results from the provider,

maybe they'll ask us, you know, what do you think about this result? How is it going to affect me? And so I think those are... those are the type of examples, that, you know, in my particular practice, I deal with day-to-day. Kathy, your role is a little bit different than mine, for sure.

**Kathy Bowman:** Right, right. And it's usually, looking for those results, you know, to see where treatment's gonna go. And also, a big part is, making the patient understand what it's about, and that it's very important because we can tailor their treatment, to them, and so a lot of... a lot of what I do is just making sure they understand, what that's about.

**Frank Dela Rama:** Yeah, I think it's the whole thing about shared decision-making. You know, we're helping them put this information together. They may have the deer in the headlights with the doctor when they get the results. But maybe we can sit down with them. I think that's, not only can we help them with the process of the timing, but education, like you said, Kathy, is key when it comes to dealing with biomarkers, for sure.

**Frank Dela Rama:** So definitely roadblocks exist when it comes to biomarker testing, just talking about our patients, you know, education, you know, knowledge. You know, what is this test? I thought I did genetic testing, but it was actually something else, and genetic, genomic... tissue, blood, you know, it can be confusing even for us to figure out what's going on. So there's definitely some, you know, knowledge barriers there. There's kind of those, again, the timing, the streamlining of the process, you know, maybe we can help with the process of getting biomarker testing or referring them to the right specialists. You know, coordinating, again, coordinating the biopsy or the tissue to get it off to these labs, EMR. Electronic medical record, you know, where can I find these, where can I make sure the patient and the... our fellow providers can get the information? And there's even financial barriers which we deal with, you know, is this covered? What's my copay? Evidence of benefit may kind of shock patients, but maybe they'll realize that's not a bill, and so we can kind of help them, kind of figure that out. And so I think, you know, I think a lot of times in my practice.

**Frank Dela Rama:** You know, even the localized prostate cancer patients, intermediate risk. Maybe we don't really need this information about *BRCA1* or *2* or *PTEN* now, but we will refer them to genetic counseling, so we'll have that testing done. They meet, oftentimes, especially metastatic patients, or you know, certain localized patients will already meet criteria for genetic testing and counseling. And so that's something that we, in our practice, we send them off early on. All of the prostate cancer navigators kind of know the guidelines for genet... when to refer for genetic counseling, and so we're trying to get this information very early, so if we don't need *PARP* inhibitors today, we know it can be in our toolbox down the line. So, I think you have a different experience in your facility. Right, Kathy?

**Kathy Bowman:** Yeah, and it's... it's important, too, like you said, just coming together as a team. I know we have a lot of good tumor board discussions around this testing. I think that helps educate all the folks that attend that meeting, which, you know, is everybody on the care team. We also... one of our genetics counselors is always on tumor board, and that's really helpful, because they're there to help, kind of guide and give us, you know, the information on

when they recommend and what the guidelines are, and so it's really helpful to have them present, for sure.

**Frank Dela Rama:** Yeah, yeah, it's a team effort.

**Frank Dela Rama:** So, biomarker testing for all. Now, if we're talking about metastatic prostate cancer patients, they all need it. You know, definitely they can meet the criteria for germline, and oftentimes, I know in my practice, the medical oncology will send off either tissue or blood for circulating tumor cells, so we can get some of that sequencing done to see if there's any biomarkers there. I think... you know, outside of the germline and somatic, there's even... you know, we're seeing a lot more of the PSMA scans as a biomarker, as an imaging, but then you mentioned Pluvicto, and so maybe that's a tool that we can use down the line. So really, we want to develop a culture of, you know, it's a standard of care. They need biomarker testing. If I don't know who... if I'm not the one giving it to them, make sure they get referred to whom they need to in the healthcare system. We want to... you know, build protocols to kind of streamline this. I know when it comes to Prolaris or Decipher, you know, sometimes my patients would be referred to me newly diagnosed.

**Frank Dela Rama:** But they were expecting that the test was already ordered, right? That's kind of filled in a little bit. I mean, they see it as a delay, but, you know, everything... they want everything done yesterday, especially when they're newly diagnosed, and so one of the things we started as a urologist, the minute they refer them to nurse navigation, they're gonna give us a heads up, oh, should I just go ahead and start the ordering process, get the tissue out for Prolaris? And so maybe by the time they're seeing me, it could be a week or two or sooner, at least we can tell them, oh, here's the results. Or maybe the results are around the corner, so that's one way that we kind of addressed a roadblock to make sure all the patients, you know, it's the standard of care now here at our clinic. And so I think, Kathy, you have a different perspective on that.

**Kathy Bowman:** The... we do the Tempus testing, the tissue, and so it's, sent... a medical oncology orders it. The nurse, puts in the order, and then our, nurses in the port, draw that blood for them, and the lab sends it off. So our, medical oncologist usually, orders that for us.

**Frank Dela Rama:** Yeah, for sure. So every facility has a... I think we're kind of similar in that medical oncologist offer that, but at least we can all look at the reports and help our patients with education. We'll go ahead to the next slide. So, biomarker testing is important. You know, definitely when we find... we're basically finding out more information about this cancer to figure out, is the risk higher, is the prognosis poorer? And given that risk or that prognosis, can we throw targeted or other therapies at that, at that type of cancer? And so that's something that's going to come about. Again, with a Tempus, you just mentioned, Kathy, if we reveal *BRCA* or one of these group of homologous repair genes, you know, those genes, are in all of our cells. We want them to work properly in our own cells; we don't want them to work in the cancer cells. And so, if we do see that the *BRCA* is not working in the tumor cell, which we can

see on these next-generation sequencings, we know PARP inhibitors are going to be helpful, kind of further prevent these cells from developing more, so....

**Frank Dela Rama:** Prognosis is poorer with *BRCA2*, with PTEN, but then we know we can use either PARP inhibitors with *BRCA*, we can use AKT inhibitors with... in addition to hormones for the PTENdeficient tumors, and so, you know, definitely biomarker testing is important. And then just because it's in the tissue doesn't mean it's always in the germline. But then we need to refer them to genetic counselors, if they haven't already, so they can learn, oh, was that actually a genetic thing that I was born with, or was it just on the tissue? So I think, you know, definitely there's, it's important not only to the patient, it's important to their treatment. And sometimes it can be important to their family, as well, for inherited risk. What about you, Kathy? Any stories around that?

**Kathy Bowman:** Yeah, and agreed. It's important to explain the differences in, you know, the tissue testing versus genetic testing, and like you said, those terms can be so confusing. And again, just educating and helping them understand why each one is important, if each one is required for that particular person. So I just make sure I am available to answer those questions for them.

**Frank Dela Rama:** Yeah, for sure.

**Frank Dela Rama:** So, it is important, we need to get it in a timely fashion. And so, timely biomarker testing is something that nurse navigators can help with you know; hopefully, it's not just you... there's some solo practices out there where maybe they're working directly with the urologist, maybe they're entering orders.

**Frank Dela Rama:** But hopefully that's not everybody. You can identify who are the go-to people at my facility. Whom can I call in pathology to make sure the tissue is out... is gone? Where do we take this FedEx for the blood, perhaps, if we're doing some type of blood testing that goes off-site?

**Frank Dela Rama:** And so I think just making sure that the barriers are not there when it comes to timeliness. And again, with my example, you know, maybe we want to do, proactive, you know, genetic germline testing if the patient is a candidate. So just to give the patient and the provider a lot of information, just to make sure that that journey later is going to be a smooth one. I think, if we can build in these strategies for efficiency, I think it's... it's a good thing when it comes to our role. Right, Kathy?

**Kathy Bowman:** Absolutely. And I need to find my connection, my pathology person and my, probably my person in the lab, and getting to know who that person is and, and making sure, about those timelines.

**Frank Dela Rama:** Yeah, sometimes they're a savior, where they can... they know the tissues. Oh, it's out for a second opinion? Let me get it, they know that you're there, so it's nice to have your little team, wherever you are.

**Frank Dela Rama:** So, disparities, you know, unfortunately, there are disparities in healthcare. There are quite a few disparities in prostate cancer. And even when it comes to biomarkers and these type of tests, you know, there's studies out there that address the disparities in, you know, related to their financial status. Maybe they don't have access to care. There's some spotlights on certain ethnicities. African American patients, you know, are less likely to pursue biomarker testing or even clinical trials. And so we want to make sure everybody gets access to the latest and greatest.

**Frank Dela Rama:** But if for some reason they're not quite getting that access, you know, something we need to be aware of to have help those patients realize, yeah, you need this test, and let's help you get that, and not let it slip through the cracks. Definitely when we look at....

**Frank Dela Rama:** Hispanic and Latino men, you know, maybe they're less likely to pursue this type of care. Maybe there's some issues in not being fully insured, which is... it shows up in the data.

**Frank Dela Rama:** Asian men, there's a lot... you know, when talking about prostate cancer, there's even just a lack of, you know, PSA screening already, so that's even before they get to this... this level. So I think, we want to give the standard of care to everybody, but maybe some of our patients need a little bit more. Maybe they're hesitant, for one reason or another. One way we can combat that, hopefully, is with education and advocacy. So we can slowly make these changes, as a whole. For sure.

**Kathy Bowman:** Absolutely. And some of the disparities, as far as, if they already have trouble, with transportation, some of those things that we're already helping them with, we know that might be a barrier for them in making sure that they get to the testing and can make it to those appointments. So, it's just always kind of checking in and seeing if those needs were still there.

**Frank Dela Rama:** Yeah, yeah, for sure.

**Kathy Bowman:** So now we're going to shift and, talk about monitoring and management of common prostate cancer treatment-related side effects.

**Kathy Bowman:** When it comes to side effects, we know not everybody has them, or it seems like there's that patient that has them all. So, just dependent on what the treatment is. Also depending on the patient, and maybe it's a, it's a Southern thing that men in this area don't quite listen when you're talking to them about side effects.

**Kathy Bowman:** You're sometimes having these conversations with the caregiver, the partner, the wife, whomever the, you know, patient allows in that circle. So it's just making sure, that the patient is, informed and well taken care of, and everybody on his care team is aware, so...

**Kathy Bowman:** So, with the side effects, we're gonna start with hyperglycemia. We know that that is an elevated concentration of glucose in the blood. It can result from the cancer treatment itself, whether the patient may be on steroids, it could be from the targeted therapies that they're on. Hormone therapy can alter metabolic health, leading to insulin resistance and diabetes. So educating the patient and helping them understand some of the side effects they may experience, the thirst, the fatigue, headaches, blurred vision, unexplained weight loss. Frequent urination is one, but, it's just being careful that, some of the prostate cancer, one of the issues can be urinary issues, so it's just, you know, looking at the blood glucose to make sure if they do have frequent urination that it may be more of a cancer-related issue, so it's just being mindful of that.

**Kathy Bowman:** But definitely to, patient history. You know, if a patient already has some, some issues with that. I know I have a patient that was on metformin. He was recommended for hormone therapy and radiation. He did some, quote, "research"—Dr. Google, I'm sure—and realized that one of the big side effects to those treatments, or to the, the, especially the, the hormone therapy, was gonna be high blood sugar, and he was concerned that he wasn't going to take that insulin. So, he was willing to put off his cancer treatment, to avoid insulin, and so it was a lot of education with him, helping him understand he already had key players on his team, the PCP, endocrinologist, he already had these people that were there in place to help him if it did happen. So, it was helping him understand it was much more important to get that cancer treatment in a timely manner so we would get the outcome that we wanted. So, he's actually starting next week, so we got him going, so...

**Kathy Bowman:** Yeah, I'm glad. So, you know, we do the blood work, as far as monitoring, for, you know, their glucose levels. We do that blood work routinely, to keep an eye on that. Sometimes the patients are doing, you know, the blood sugar monitoring at home, and we have them, if, you know, they're borderline or becoming that way, we have them check that at home. Sometimes we need to adjust the meds. That doesn't happen a lot, but it can be something that we need to do. And they may require insulin therapy. But again, it's working with the team to make sure that the patient's well taken care of, you know, while they're on treatment. Some things we also tell the patient, you know, to decrease, you know, your sugar intake, consume small meals versus those 3 big meals, stay hydrated.

**Kathy Bowman:** That lovely word of exercise everybody likes to hear. And then just report any changes that they might have in the blood sugar readings that they do at home. Frank, any... anything you would...

**Frank Dela Rama:** Well, yeah, those are all hitting the nail on the head. I know that we deal with this all the time. A lot of these guys are already older, they have other diagnoses, like, they maybe have, like you said, diabetes or other things going on. And so, there's... I think

we're just there to kind of help with what you said, just reminding the patient, or the wife, or the caregiver, let us know what's going on, because we can help avoid. And if there's some misunderstandings about what they should be doing, because they're hearing it from a whole bunch of different doctors, and we can kind of get them on the right path.

**Kathy Bowman:** So the next side effect we'll talk about is diarrhea. Diarrhea defined as loose, watery, runny bowel movements 3 or more times in a day. We can also grade those. Grade 1 diarrhea is less than 4. Grade 2 is 4 to 6, and grade 3 is 7 or more. Diarrhea can come from treatment, unfortunately. We know it can come from chemo, it can come from radiation therapy, and immunotherapy. But one of the big questions, when a patient calls, and is talking to you about that, or you see them in treatment, and they're asking about that, is what is your normal pattern? You know, some folks, it's 6 times a day, and we're... you know, if somebody just off the cuff told me that, I would be like, oh gosh, you absolutely have diarrhea, but sometimes if, you know, depending on that being their normal, it would definitely be something we'd want to find out up front.

**Kathy Bowman:** We, tell them to, you know, stay... need to stay hydrated. They may need IV fluids after our conversation. Tell them, you know, what are you drinking? How are you drinking plenty of water? Gatorade, broth, those kind of things. Also talking to them about Imodium. You know, are you taking Imodium? Are you taking it correctly? A lot of times that's the thing, they're not taking it correctly, and, so it's just making sure. Sometimes if the Imodium's not working, they have to get a prescription for Lomotil, so it's just also telling them, you know, staying in touch with them, having them keep you updated on what's going on. Some of the things that we tell the patient they can do is maybe a low-residue diet, the BRAT diet.

**Kathy Bowman:** Smaller meals, of course, avoid your fiber, stay away from caffeine and alcohol. And then we tell patients to call the doc, 6 or more bowel movements in a day for 2 days. Definitely if you have a fever, usually our standard is over, like, 100.4. I think we tell everybody, anytime you run a fever, because everybody's fever can kind of vary. As to what that number is, give us a call. And to look for signs of dehydration, you know, if you're dizzy, dry mouth, your urine's dark. Or definitely call if those antidiarrheals aren't working. So... anything to add?

**Frank Dela Rama:** Yeah, and I'll mention, you know, speaking from a provider or nursing standpoint, you know, I know when I was in radiation oncology, we kind of built in this weekly questionnaire, because sometimes it's not the nurse checking in with the patient. That's right. Maybe it's a medical assistant you know, we're going to relay this information, so I think we had a checklist of how is, how was your urination patterns? Do you have any stools? And so, at least in the chart, there's kind of a... even if they didn't have any problems, at least we'll have the documentation. And, you know, let's say someone was sick in nursing, and the float was taking care of the assessment, at least it was easy for them to get the data on the patient and ask the questions that, you know, patients don't want to answer. But definitely, but we have... the assessment is built into the standard of care, I know, in radiation. Sometimes these

patients are on concurrent therapies, you know, chemotherapy, maybe that's going to make things a little bit worse. And so, if we can kind of build that into the standard of us checking in with and making sure the right people get that information to intervene.

**Kathy Bowman:** Exactly.

**Kathy Bowman:** So, nausea and vomiting. So nausea and being queasy is often an effect of treatment, for sure. Acute is within 24 hours of treatment. Delayed is within 1 to 7 days of treatment. They may complain of dehydration, dry mouth. Abdominal pain, maybe some weight loss, decreased appetite, decreased urine output, so... would be to check to see if they have anything, antiemetics prescribed, any Zofran, Compazine. If they do have that prescribed, are they taking it correctly? I don't know how many times I've talked to patients and they're either not... don't want to take it, I don't want to get hooked on these drugs, and it's explaining again to them, that, you know, this is... treatment-induced nausea and vomiting, so those drugs will do nothing but help, and kind of go over how to take them, if it's the Zofran-Compazine combination.

**Kathy Bowman:** Also talking to them about eating smaller meals, again, the BRAT diet. Stay hydrated. Avoid anything, strong odors, that might bring on that nausea. What works for you when you're nauseated? Is it the peppermint? Is it ginger? Is it saltines? You know, what helps you when you have that feeling? You know, and then, too, supportive care, whether it be, you know, relaxation therapy, some folks use acupuncture, you know, for that. And we tell them when to call. You know, give us a call, if the nausea and vomiting persist, even when you're taking the meds.

**Kathy Bowman:** If nausea interferes with your ability to eat, if you're vomiting 4 to 5 times in 24 hours, and you just can't keep food down, period, we ask them to call. So, anything to add, Frank?

**Frank Dela Rama:** Yeah, and I know you mentioned men are a different breed, right? And so.

**Kathy Bowman:** No offense, Frank, no offense.

**Frank Dela Rama:** Asking them, you know, some of them are, like, warriors, and they're gonna say, they're gonna try to grin and bear it, and they say, just deal with it, I can feel... I can deal with this nausea, but then, like you said, with the education, why not make the treatment ease a little bit better? I mean you know, with radiation, we know if we don't include a lot of the stomach or the bowel in there, maybe they're not going to be as nauseous, so maybe managing expectations. If they're just getting prostate radiation, or if they're getting, like, pelvic or other things that might be more related to a higher cause of nausea. But yeah, getting that information out of the patients can be key, especially with this patient population.

**Kathy Bowman:** Absolutely.

**Kathy Bowman:** So, fatigue... fatigue, can be physical, emotional, mental, feeling of tiredness, or exhaustion, which we know a lot of our patients feel with their treatments, especially, like Frank mentioned, a lot of our patients are on, you know, dual therapies, and so definitely they get a double whammy of that. Or it can be due to the cancer itself. If feeling I'm tired, we tell them, okay, in the conversation. It's a tiredness that doesn't get better with sleep, or rest. They're too tired to do the things that they normally do. Very weak, they can't focus or concentrate. You might hear some of these things from patients. Signs and symptoms, too, that we can pick up on in our conversations. If they're, you know, talking about pain, sometimes when you're fatigued, everything hurts.

**Kathy Bowman:** And it's just trying to get to the bottom of what that pain is for. I know there's a patient, that just today was talking about how fatigued [they were] and trying to get you know, some information. It was like, is it the physical pain, or is it more the mental? And it happened to be more of the stress that he mentioned was going on. So, you know, it's just having that good conversation to figure that out. They may have some depression, anxiety, sleep problems. Problems eating and drinking. You know, not enough physical activity. To talk to them about maybe some medicines, supplements. Some pain control, again, like we were saying, having that good conversation about exactly what's causing the pain, what kind of pain it is.

**Kathy Bowman:** Talking to them about counseling. You know, we have 2 counselors in our institute and a chaplain, and they're all willing, you know, to see our patients and their families. A lot of times, they do see husband and wife, or the children, they... you know, step in and help with that. Some sleep therapy. How much sleep are you getting a night? Making sure, you know, they take short naps if they're not getting enough rest at night.

**Kathy Bowman:** Exercise, definitely no more. If you're trying to do something physical, no more than 2 hours before you go to bed. But physical activity is part of trying to help that fatigue, and it's trying to help that patient understand there is a balance. You want them to rest, but at the same time, the more active they can be, sometimes it kind of... curbs that fatigue. So it's just talking to them about what things they like to do, if it's just taking a little walk or, you know, walking the dog, those kind of things.

**Kathy Bowman:** We do have several programs in our cancer center that, we have the Livestrong, that partners, with the Y. It's a 12-week program, and I believe if the patient goes, the family also can go for those 12 weeks at no cost. And so that's an incentive sometimes for them. We also have a cancer wellness program. That's a 12-week program as well, and it's tailored specifically to that person and what they can do, and trying to help combat some of that fatigue.

**Kathy Bowman:** Also, too, having them maybe keep a diary, of, you know, how things are going, and that way they can kind of look and see maybe where they can have some improvement in that area. Frank, anything on the fatigue?

**Frank Dela Rama:** Yeah, so definitely, I think you addressed it all. Finding out what the culprit is, right? If it's something physical, get them to these exercise programs, or kind of move that way. If it's something that's more psychosocial, maybe they need some counseling with a social worker, a counselor, to kind of figure out the source, and so... but yeah, best... you know, the best remedy for fatigue is always exercise, but then if there's something else going on, maybe a good idea to find out about that as well. Yeah.

**Kathy Bowman:** So rash, being a skin reaction, that can result from inflammation, irritation, or skin damage, due to chemo treatment, immunotherapy, targeted therapy, or radiation.

**Kathy Bowman:** Rash, is one of the things that is very, very common, in especially the immunotherapies that, some of our patients receive. It can present, just as a dermatitis. It can present with hives, acne, the purpura, which is the purple spots and patches under the skin. Sometimes that can kind of clue you in that they've got some thrombocytopenia going on. You know, they'll always hold their arm out and say, look at this spot, you know, and then you kind of have to do a little investigating on what's going on. They have the macular places, they're small, distinct, flat areas. And the papular are the small, raised lesions that patients can get. A maculopapular rash is the most common in drug-induced skin reactions. They're that really bright red that you see sometimes. The skin may feel hot to the touch. They have some burning and itching,

**Kathy Bowman:** And a lot of times, I get to the treatment room, and they just pull their sleeve up and say, hey, I forgot to tell the doctor about this, and so then you begin your investigation on what's going on. We usually will tell them to try some antihistamines and steroid creams.

**Kathy Bowman:** I always inform the doc if, you know, I've told them something, and make sure there's nothing to add if it's something that's mild, but if it looks really ugly, definitely it's a conversation, and just getting some more information from the patient and sharing that with the physician.

**Kathy Bowman:** Sometimes they will, if it's bad enough, they will dose-reduce the medication, and sometimes we've actually paused treatment as well until that's cleared up, and I've had some patients I know in the past that, I mean, have had it horribly, where they couldn't even put their shoes on. Feet are peeling and blistering, and, it's been several months that we had to pause treatment, but, you know, just... again, getting that information and doing the right thing for the patient. Telling them to, you know, use some mild soap on the area, try to pat the area dry, don't rub. Make sure you're wearing protective clothing when you go outside, definitely. If something like that's going on, they don't need to be in the sun. But if they're on any, you know, treatment, they definitely need sunscreen, if they don't, you know, have this rash, going on, and being outside.

**Kathy Bowman:** Always telling them to notify the team, their navigator, or their doctor. Sudden widespread rash or hives, let us know if they have blistering, peeling, oozing. Let us know with that. And also, if the pain is intense, a lot of burning and itching, especially when they're trying

to go to sleep and it prevents their sleep, we would really like to know. Too, if they have any fever or chills, very important to share. Anything to add, Frank?

**Frank Dela Rama:** Yeah, Kathy, I'll just mention maybe, one thing that's been helpful is if we know they're at risk for rash, maybe to be proactive about... I know I'm not good at, you know, putting moisturizer on myself, maybe every day, but maybe when they get on treatment, the patient and the caregiver can do regular moisturizers even before the rash even happens, but at least we know we're looking regularly, or maybe the wife is looking regularly. Oh, maybe this is different from last week. And so, I think, yeah, definitely when the rash develops, we're talking about steroid creams, but maybe we can be more preventative with, again, you said fragrance-free soaps. Maybe some gentle Aveeno moisturizers, no perfumes, and so... and building in that. You know, that check of the skin at home so they can kind of monitor it as well.

**Kathy Bowman:** Right. And I do believe there are a few others that we weren't going to go so in-depth with, but there are other side effects that our patients have, that I know I hear about. Frank, I'm sure you do too. Hot flashes being... being one that I hear from my fellas, and, you know, the wife's always sitting there, you know, smirking when he says he's having hot flashes. She said, now you know what it feels like. Sleeping with the windows open, all that kind of stuff. But we know that is one that, or I know I hear that a lot, that my fellas talk about. How about you?

**Frank Dela Rama:** Yeah, definitely hot flashes, especially if they're on, you know, hormone therapy, or, you know, basically these men, I guess, are older. We're all gonna get andropause as well, so just like with diarrhea, what's the baseline? Are you getting... are you having, like, 2 hot flashes a day, or 5? So, again, building that into the asking other questions. And then the other thing related, you know, erectile dysfunction. You know, we want to build that in and make sure. I mean, maybe during the treatment, there's some effect on their erections, and so that's definitely something that we'd like to ask, and if we can intervene in the meantime, or if we want to let them know what to expect once the treatment is over, maybe it'll get improved somewhat. So I think those are the top 2 other side effects that I deal with, day to day.

**Frank Dela Rama:** So I think, if there are any questions, a reminder to submit them to the Q&A, as we have... we're gonna have some time to address your questions, so look forward to... and addressing those.

**Frank Dela Rama:** I think one of the questions that just came in is for patients who fear the adverse effects associated with prostate cancer treatment, what strategies do we use to assuage that, how to help them with that fear, Kathy?

**Kathy Bowman:** I think for me, it's... when I... when I meet them in the beginning, it is just... again, making them know that I'm available to them and their family. I, I try to, try to make them feel as comfortable as I can. I try to see them as often as I can see them as much, but it builds that relationship and that trust, you know; therefore, I'm able to talk to them about and

hopefully relieve some of the fear, of what they're, you know, thinking is... is gonna happen with the treatments, or, again, learning from them where... did they have a family member that had cancer? A lot of them, you know, say.

**Frank Dela Rama:** Oh my gosh.

**Kathy Bowman:** I saw my dad got burned up by radiation, I'm not doing that. And just seeing where their fears lie, and hopefully, being able to alleviate those fears by some education and just a good discussion.

**Frank Dela Rama:** Yeah, I think it's another point that I'll bring up is, you know, setting the stage, right? And so, I get a lot of engineers here in Silicon Valley; they've read the whole prescription and seen all 500 side effects, but then maybe...

**Kathy Bowman:** The engineers come.

**Frank Dela Rama:** Yeah, narrow it down to, if we're on this medication or this therapy, maybe the top 2 things we're gonna focus upon are maybe... you know, nausea, or would the apalutamide, maybe rash. And so, even though, you know, there's a lot of side effects that you have to list in the PDR, you know, trying to set expectations again with the patients. Let's plan to check in regarding this symptom, and then... but if anything happens, the door is always open, so they can always reach us. For sure.

**Kathy Bowman:** Right.

**Frank Dela Rama:** I think another question just came in, Kathy. Based upon the treatment regimen that a patient is receiving, how does your education towards biomarkers and AEs, adverse events, how does that... how does our education change?

**Kathy Bowman:** It's on the treatment.

**Frank Dela Rama:** You know, I'll just kind of chime in on that. You know, definitely, where are we in the treatment plan? And so, if they're a hemat, hormone-sensitive. And we need to get biomarkers ASAP so we can figure out maybe they can benefit from a targeted therapy or an AKT inhibitor. So I think, education, the urgency changes, you know, definitely, if it affects the things that are going to happen within a week. You know, let's focus upon this, versus when I see my patients who are, you know, maybe early-stage, but we're talking about *BRCA* and, you know, genetic biomarkers or germline early on.

**Frank Dela Rama:** You know, my education is, well, we don't need this information, it's not going to determine your immediate treatment plan, but it could be helpful down the line if we need it, or it could be helpful if it's inherited. Maybe we want to offer the test to your family, even to your daughters, so they can be more proactive. So I think it depends upon does this biomarker affect the immediate plan, or like the *PSMA*, right? You know, they do the scan, and

if there's some pain, maybe Pluvicto is going to be something that's going to be... useful around the corner, so I know that's the one strategy that I've used. For sure. You know, Kathy, I think there's another question.

**Kathy Bowman:** Okay.

**Frank Dela Rama:** Real quick, what do you tell patients who ask about what diet they should be following when going through prostate cancer treatment and beyond?

**Kathy Bowman:** Okay. Well, I know in our cancer center it's knowing up front, what... their diet is. I know, especially with radiation, they have to be very careful with the diet. So, a lot of them, what they think is gonna be the great, let me have all this grain, and let me have all these veggies, and let me have all... you know, it's like, that's great, and I'm glad that's your... that's your diet now, but... having to have them adjust that for a radiation-type, low-residue diet is challenging. I always tell them they'll have it figured out by the time treatment's over, how that's gonna work.

**Kathy Bowman:** But... making sure our dietitian connects with them is a big part of what I do, especially with the ones that are... have a very, very healthy diet up front, and trying to adjust to a different diet during treatment, and then going back and helping them place, when is a good time to go back to my diet that, you know, had all the grains and the veggies and the fruits, and so it's usually connecting them with our dietitian that does an excellent job, on educating them.

**Frank Dela Rama:** Yeah, yeah, I would agree. Best-case scenario, you have an oncology dietitian that you can refer to. I mean, there are great resources at American Cancer Society. There's a link about before, during, and after treatments, so getting them the vetted websites, making sure they're not Googling or ChatGPT and gonna find god knows what. But I usually have a handful of... you know, resources that, I can share if... before they see the dietitian, just kind of general, but vetted information is what I think works.

**Kathy Bowman:** The same. She usually gives me copies of what she hands out, just in case she's not around. Same. So I have some things, like you said, American Cancer Society, there's a wonderful list of dos and don'ts that I can share with them as well.

**Frank Dela Rama:** Great. I'm just trying to see if there's any more questions. Here's one. How do you best manage sexual side effects associated with ADT?

**Frank Dela Rama:** So I think...

**Kathy Bowman:** Good question.

**Frank Dela Rama:** Yeah, I think, that's a good question. Conversation, you know, again, what to expect? You know, are they on radiation now, or chemotherapy, or something that's gonna

be... or with the hormone therapy, definitely I notice there will notice the libido change if they've been on it for quite a while. Not only are they having hot flashes, they're having libido changes. Maybe if they're on it for long term, you know, there'd be some weakness, and so, you know, definitely it's assessing their baseline, you know, what do they expect? What are they already having prescribed? Is it more of a physical or pharmacological intervention, or is it something else? And so I think that's just more about managing, means interviewing the patient and working with them. Hopefully they're the most comfortable with you, as a nurse navigator, kind of share that information.

**Frank Dela Rama:** They don't want to share that information with the doctor, they're too proud to kind of complain, but again, building that into, like, an ongoing discussion so that the doors open, that's kind of what... how I've dealt with the side effects in my practice. I don't know about you, Kathy.

**Kathy Bowman:** The same. Again, just good conversation. I think a lot of times, the wives feel better approaching me, being female.

**Frank Dela Rama:** Okay.

**Kathy Bowman:** So, I've actually had several wives, you know, and they'll just come right out and say it, you know, and it's great, and so just having that conversation again, trying to get to know them, I think the more I'm present, and... in their care and watching and making sure everything's going okay, the more likely they are to tell me what's going on, especially in regards to the sexual health.

**Frank Dela Rama:** Let's see, Kathy... Kathy, you mentioned Pluvicto early on in working with RLT, radioligand therapy. Do you... how do you deal with managing those side effects? Are you familiar with that at all?

**Kathy Bowman:** The side effects from the Pluvicto?

**Frank Dela Rama:** In Pluvicto, yeah.

**Kathy Bowman:** And I know they have a [big list of things to do], they have to stay quarantined for a certain amount of time as well. And that's... a big part of the education is helping them understand what that means, and the family, too. You know, they have to be quarantined for 3 days, they can't be, you know, 3 feet away for 3 days. They have to bag their laundry and wash it separately, and use a separate bathroom, you know, all those kind of things we go over. And the side effects, too. Blood counts, in my experience with our patients, the blood counts have been something that have been greatly affected. So we're doing those blood, they recommend doing blood work. A week before the Pluvicto treatments and 2 weeks after. Several of my guys have had to have blood transfusions before we even do the Pluvicto.

**Kathy Bowman:** Another big side effect is dry mouth, I think about... I'd say 80% of the guys that we have treated in the last 2 and a half years have said dry mouth is a huge thing. Wow. So, it's just, again, having that education, having that time with them before. Checking up on them and, you know, hey, how's it going this week? How's it been compared to the last time you had it?

**Kathy Bowman:** And the nuclear medicine department that I work with is phenomenal. We work hand-in-hand to educate those patients on those things, so I'm very fortunate to have them as well.

**Frank Dela Rama:** Yeah.

**Frank Dela Rama:** I think we're about to... I think we're about running out of time.

**Kathy Bowman:** Yeah.

**Frank Dela Rama:** Well, it's been a pleasure, presenting with you, Kathy. I hope those people, we all out there in the audience, got some tidbits of information on the subject of biomarkers and side effects, and so it was a pleasure to present as well, so... absolutely, thank you. Happy to do so.

**Kathy Bowman:** Thank you too, Frank!