

Dr. Zachary Klaassen: Thank you very much, Becky. I think this is a very important session because this is a—unfortunately, it's not uncommon for the PSA to start going up after treatment. And I think, without a doubt, this is one of the most anxiety-ridden situations that a patient can experience. I'm delighted to chat with Dr. Koo and Dr. Ballas about this. So maybe I'll ask Dr. Ballas. What does a rising PSA mean in just sort of general terms?

Dr. Leslie Ballas: So actually this is a really good question, because whether you choose surgery or radiation, you have different expectations in what will happen to your PSA after your primary treatment. If you choose surgery, and the prostate is removed, your PSA should go to an undetectable level.

There should be no prostate tissue to produce PSA. And so, really any rise above that undetectable level, you know, is something that needs to be carefully monitored. I think it's important that you understand—that patients understand that, you know, PSA is about trend over time. No one blood draw is going to, you know, make or break any sort of next steps.

When it comes to radiation, the PSA falls much slower after the treatment, down to what we would call a nadir, or the lowest point that it reaches. You know, we ideally want that to be less than 0.5. In many patients it's 1 or less. And the definition of biochemical recurrence or concern in a rising PSA after radiation is 2 plus that lowest value.

So if your PSA goes all the way down to 0.5, you don't technically have recurrence of your prostate cancer after radiation until it hits 2.5, which can be very stressful for patients because they're watching it rise, watching it rise. And we don't always wait until that 2.5 in this example to start. And, you know, going on. But that is the true definition. And so that's sort of what we're talking about with PSA rise.

Dr. Zachary Klaassen: That's great. And Dr. Koo, obviously depends a little bit on the patient's initial risk of their disease, whether it be low, intermediate, or high, but how common is a PSA rise or what we call a biochemical recurrence after primary therapy?

Dr. Phillip Koo: You know, I think there's a lot published in this space. And I think sometimes some people say 30 to 50%, 30 to 40%, but again, I think it's not uncommon. So, you know, I think it's important that this is something, this happens and we need to be prepared. And then one thing I also like to remind patients is that every recurrence isn't sort of a one-size-fits-all type of recurrence.

And as you talked about, a lot of it depends on, you know, what your disease might have looked at...what it looked like before. What was the timing? Is it seven years after definitive therapy? Is it one year after definitive therapy? What type of therapy? So there are, again, a lot of different questions that need to be asked, explored that will help inform the next steps.

Dr. Zachary Klaassen: That's great. And Dr. Koo, when should somebody think about asking about a PSMA PET scan or having they're—having that conversation with their provider?

Dr. Phillip Koo: So I get asked this question all the time.

Dr. Zachary Klaassen: All the time!

Dr. Phillip Koo: Yeah, all the time! And my recommendation is if you—if it's on your mind, go ahead and ask. Because if your PSA is going up, you're worried, you're stressed, you're concerned. You need answers. Start the conversation. But then when you have that conversation, I don't think there's a very clear black and white response or answer to that. It really depends on what are the goals of care. If you get a PSMA PET and it's negative, what's the plan?

If it's positive, what's the plan? And if there is a plan and there's some—a way in which that test is going to actually impact your care, then yes, we should go ahead and get that test so you can move forward to care. If it's just “oh, I'm curious. Let's see. But I'm not ready to intervene.” Then what really is that value in getting that test right now?

So it's really about the team including the patient being ready to take action, whether it be negative or positive. One thing that we are seeing, with data with regards to biochemical recurrence and salvage, is that salvaging patients earlier, even with the negative PET, is very valuable, right. We're still learning more about this, but I think this is providing more and more reasons why we should consider PSMA PET earlier in patients with biochemical recurrence.

Dr. Zachary Klaassen: Yeah, absolutely. Before I ask my next question, I want to hit on something you said there which I think is really important. It's having a plan. And I think when we talk about anxiety, whether it be at primary therapy or in the setting that we're talking about over here, biochemical recurrence, PSA is going up. Having a plan is—as providers, this is what we're supposed to do for the patient, because I think having a plan decreases anxiety tremendously.

And so I think as the listeners of the patients and providers on the line, make sure you have a plan before you leave your provider's office, because I think when you go home, when you're driving home, this is important to decrease that anxiety, which is—everybody has after these situations. So I think you've stated that very well.

I'm going to ask Dr. Ballas, what sort of treatment options do we have after surgery and after radiation therapy? Certainly this could be a very broad topic itself too.

Dr. Leslie Ballas: Yeah. So, patients who have a rising PSA after surgery, typically, you know, would be offered counsel with a radiation oncologist. As Doctor Koo mentioned, you know, watching PSA and intervening at an earlier or lower PSA after surgery has been shown to have, you know, benefit, versus waiting and certainly versus waiting until you have a positive PSMA scan.

And so, one treatment option after surgery would be radiation to the prostate bed or area where the prostate used to sit, that may or may not be combined with hormone therapy depending on how high the PSA is. Again, we do tend to use Decipher in this setting to help us figure out sometimes who needs the additional treatment with hormone therapy.

In terms of what treatment would be the next step after radiation, you have—there are options there. So if you have a rising PSA after radiation, commonly we would want to do imaging to see, you know, if we can detect where the disease is coming from, if it's coming exclusively from the prostate, with no evidence of disease beyond the prostate, that's when you have the most choices.

Surgery is an option, as is potentially focal therapy. And probably one of the better options would be the brachytherapy after prior radiation, only because when we look at side effects from these different salvage therapies, brachytherapy does seem to end up having the least side effects in that salvage setting after primary radiation.

Dr. Zachary Klaassen: Yeah, absolutely. And I think—I'll just, maybe dovetail a little bit off of that, too.

I think as a surgeon, the surgery after radiation certainly is much more difficult from a... from a surgical standpoint. The planes between the prostate and the rectum are very close. So I typically counsel patients that the risk of incontinence is nearly 100%. After that, the risk of erectile dysfunction is nearly 100%. And in a situation where the rectum maybe

doesn't come off the prostate very well, the patient may need a colostomy for a period of time as well.

So I think it's important that surgery may be an option, but if you're going to go for it, go for somebody who's done a lot of these salvage surgeries. And I think your point about sitting down and having multiple conversations about what these options are important. Cryotherapy may be an option. Some of these other modalities that we talked about earlier, too, so.