Melanie Cole (Host): Welcome to the podcast series from the specialists at Penn Medicine. I'm Melanie Cole and today we're discussing the PeRioperative Evaluation and Planning (PREP) Program at Penn Medicine.

Joining me is Dr. Nicole Saur. She's the Director of the PeRioperative Evaluation and Planning Program at Penn Medicine. She's also the Director of the Geriatric Surgery Program at Pennsylvania Hospital. Dr. Saur, it's a pleasure to have you with us today. So the PREP Program that we're talking about today is perioperative in that it involves that entire timeframe from pre to post-surgery. And before we get into some of those elements that define each of these periods, can you discuss what ties them all together, the unifying goal of the PREP Program, please?

Dr. Nicole Saur: Yes, absolutely. Thank you so much for having me. It's really an honor to be here. The PREP program is, as you're saying, this perioperative program, which is focusing on optimizing patients for surgery and for their entire course. We know that in especially geriatric surgery, we haven't always done the best job of identifying what the patient's goals are, what the patient's vulnerabilities are that might make them not as suitable to go forward straight to surgery, and then what their goals are after surgery, what they would consider a success.

A lot of times in colorectal surgery, for example, what the surgeon defines as a success, which is a successful outcome and well-healed anastomosis with a good oncologic outcome, isn't necessarily the same thing that a patient defines a success, which might be getting home to their family, being independent in their activities of daily living, having good bowel and bladder function or any number of other outcomes.

This disconnect is sometimes not recognized until after the surgery. And we define that as what we call functional recovery, meaning that the patient is back to their functional baseline, whatever that might be. And we're putting that more and more into the forefront. And what we're doing with the PREP program, is discussing a lot of these issues and giving people realistic expectations about what a surgery or a postoperative course might mean for them.

Host: Well, thank you for that. So let's discuss what that looks like. How does the program assess and prepare older adults prior to the major colorectal surgery? And what for example is the role of prehabilitation? Give us an overview.

Dr. Nicole Saur: So we have a really experienced geriatric team, which includes a geriatrician and a nurse practitioner who are evaluating the patients before surgery with a series of frailty questions. We're looking at their function, their cognitive status, their nutritional status, and then their activity level. So, there's a series of objective tests, because we know that surgeons and physicians in general are not very good at what we call the eyeball test. We know that is not accurate and so we're getting objective information. And then based on that objective information, we're going on with a multimodality prehabilitation.

So prehabilitation is the opportunity to optimize whatever abnormalities we're finding in the frailty screening, whether that's in nutrition, in activity, in social support to figure out if patients need additional resources after surgery. This is individualized. Some patients don't need any optimization and they can go straight to surgery, whereas other patients need significant optimization and some patients aren't able to be optimized. In those cases, we should really be thinking about what we call adapted care to decide if the full surgery is appropriate in that patient.

Host: We're learning more and more about the role of prehab in better outcomes. So it seems like it's a little bit similar, Dr. Saur, to enhanced recovery after surgery, or ERAS. Where does that fit in with this total picture?

Dr. Nicole Saur: Yeah. So in our schematic that we created, we made a multi-phase, so preoperative, intraoperative, and postoperative, and it looks very similar to the ERAS continuity. And so, what we're seeing is that the ERAS is really running along the bottom in coordination with this program. So we're doing the ERAS program in all three phases, and sometimes in geriatric patients, we do have to make modifications. For example, geriatric patients generally don't get gabapentin, one of the pain medications, because it has been associated with falls and is generally a medication to avoid in geriatric patients. And sometimes patients with renal failure or with concern for that don't get NSAIDs, so we make some modifications, but it's really running parallel along the lines with the PREP Program.

Host: Good points to note. And how do geriatricians, other providers fit into this continuum? Tell us about the multidisciplinary approach on how important that is for these patients.

Dr. Nicole Saur: That's really essential, because geriatricians are really skilled providers in identifying these kind of unseen vulnerabilities in geriatric patients. We know, we're not good at the eyeball test, so we really need their expertise in addition to the frailty screening. And that is the role of our geriatric teammates.

The ideal is that they see them at the beginning, they help with the frailty screening and also defining of goals and what we call shared decision-making. And then they're also involved if the patients have a malignancy in the multi-disciplinary cancer tumor board, which is really important just to make sure we're seeing again what the patient's goals are and that we're accounting for that at all stages. Then they're seeing them again postoperatively in the hospital to ensure that we're catching delirium early, that we're preventing falls and other geriatric potential complications.

And then they're seeing select patients back in the clinic again, just to make sure that we're wrapping up, that the patients didn't carry over with any unnecessary medications, that their home is as supportive as we had thought when they were discharged and to make sure that we're not missing any other opportunities to get them back to their functional baseline.

Host: And one of the more important aspects I would think, as you say, is shared decision-making. That communication is such an important element of the PREP program. What do you hope to learn from patients as they approach surgery? What role does that communication play in decision-making and the management of expectations of those patients?

Dr. Nicole Saur: The communication really is key between the providers and the patient and the patient back to the care team, but also between members of the team. And that's why we've really worked out this great system of communication between our teammates and also we hope to communicate well with the teammates outside of Penn and also with the patients. So we're really putting the patient and their care team or their care partners at the center to make sure that we understand really what their goals are and also to understand what resources they have and what they might need as they go through the care continuity.

Host: So discuss for us, Dr. Saur, some of the issues for surgery in older adults as you've identified them and why Penn Colon and Rectal Surgery is ideally suited to meet these challenges. What sets you apart and makes you unique in this program?

Dr. Nicole Saur: I think that this is a field which is really exciting, because there's been a lot of innovation and I think we're going to just continue to innovate and we're going to see a lot of improved outcomes for patients. Historically, we've had challenges, because patients a lot of times were treated based on their age. For example, in rectal cancer, which is a very complex treatment paradigm, a lot of times patients were excluded from the standard of

care because they were of advanced age. At the same time patients, maybe who are younger, but were less fit, were given really advanced surgery with potentially not as great of outcomes because they weren't as old and so they were seen like they would be ready for surgery.

So, we're often either over-treating or under-treating people, and we did not have the best metrics for that. That's why we're so excited now, because even in these really complicated diseases, we can give patients a lot more information about what their risks are of either having a complication or having a poor functional outcome.

A lot of patients would rather have, for example, a permanent colostomy than to have the possibility of fecal incontinence after a major rectal cancer surgery, but not all patients. So, we can't really make assumptions. We know that it's not one-size-fits-all, and so we really need to be speaking with the individual patients to see what their goals are and if they are willing to, for example, have the potential of not perfect fecal continence with the trade-off of potentially having a permanent ostomy and what that might mean for their day-to-day life.

This is why we think that this multidisciplinary approach is really the way forward, because we can give the perspective, not only of the surgeon, not only of the oncologist, but also of the geriatrician. We also have a palliative care team involved. They can help a lot with the shared decision-making, also with treatment of symptoms, both preoperatively and postoperatively. And we really think that this is the way forward and we're excited to see it play out here at Penn and then also across the country and the world.

Host: So after surgery, Dr. Saur, the PREP Program involves geriatric co-management. We've been speaking about the multidisciplinary approach, rehab, social support, as well as, any ongoing adjuvant therapy. So I'd like you to tell other providers how you weave these elements together, because I think when people hear multidisciplinary approach, they're not sure how you all connect to each other, so that one hand knows what the other hand is doing. So speak about how you approach that with your other providers.

Dr. Nicole Saur: So, like you're saying, communication is really the key, so we have one lead nurse practitioner. Her name is Cathy Strohl and she's really running the program for us. She's facilitating this discussion between the geriatric team, the oncology team, the radiation oncology team, physical therapy and primary surgical team. And the idea is that she is seeing the patients preoperatively coming up with a personalized plan. And then she is also seeing them postoperatively and helping to coordinate that care to make sure that

they're getting optimal physical therapy evaluation, and also treatment while they're in the hospital, that we're involving other supportive care services as needed, for example, occupational therapy, speech therapy for patients when it's needed, and then we're getting them hopefully to home, but to wherever is the most supportive environment for them postoperatively.

We also have really strong associations with several of the nursing facilities in the community. So if people do need a short stay at a rehabilitation center, we have a team there that we can communicate well with. And the idea is just that we get patients back home as quickly as possible, whenever it's safe and we're just utilizing all of these resources and that we have found to be very impactful.

A lot of times when we think about rehabilitation or rehab, for example, we're thinking about a destination where we say that we're going to discharge the patient to rehab. But especially in some of the studies in Canada, they did a really good job of active rehabilitation. They were using treadmills to do walking tests and to optimize patients before surgery and then they really were actively trying to rehabilitate them after surgery in an active way. And I think that that is the future. So if we do that before surgery and we carry that after surgery, then we try to optimize patients as much as we can so that they need as little support after, but we give them that support almost immediately, I think we can get patients back to their functional baseline much faster than what we were expecting in the past.

Host: Which is certainly the ultimate goal. So as we wrap up, PREP isn't just for patients, but for their providers as well. What would you like them to know about referral to the program and how they can reach you should they want more information about the PREP program at Penn Medicine?

Dr. Nicole Saur: Thank you. We are really excited to continue to expand this program. For now, we're starting with colorectal surgery patients. We have a website and you can also reach us through any of the standard Penn Referral Lines.

We are really excited to start expanding at Pennsylvania Hospital to other service lines, including ENT and spine. And we have this vision that all service lines will eventually have the PREP program. So if there are any collaborators that want to talk about expanding this to other institutions, we're always very happy to communicate and collaborate, and I would be really happy to communicate with you anytime. So please do reach out.

Host: Thank you so much, Dr. Saur, for joining us today and telling us about the important details of the PeRioperative Evaluation and Planning Program at Penn Medicine.

To refer your patient to Dr. Saur, please call our 24/7 provider-only line at (877) 937-7366 or you can submit your referral via our secure online referral form by visiting our website at pennmedicine.org/referyourpatient. That concludes this episode from the specialists at Penn Medicine. For updates on the latest medical advancements, breakthroughs and research, please follow us on your social channels. I'm Melanie Cole.