

The Transformer: the UW Medicine Podcast

Episode 3: Cookbook Medicine: A Recipe for Success?

Opening Soundbite: A lot of the physicians are uncomfortable with the use of pathways, talk about pathways as cookbook medicine. They tend to feel belittled by the fact that everything now is written down. I think it is a concept of the past. The best cooks actually use cookbooks or write cookbooks.

[Musical intro]

Josh: Greetings and welcome to another edition of The Transformer: the UW Medicine Care Transformation podcast. I'm your host Josh Kerns. As we continue our journey inside the massive undertaking that is care transformation and the UW Medicine way, it only makes sense we have to have a roadmap to know where we're going. So, in this episode, we take a deep dive into standardized pathways, building a repeatable model for everything we do. It's the key to successfully implementing the UW Medicine way. And with that, let's dive in.

Welcome, it's great to have you all for another conversation here on The Transformer and introduce yourselves, first of all, who are you and what is your role in the care transformation initiative. We'll start with the big cheese.

Carlos: I am Carlos Pellegrini. I'm the chief medical officer for UW Medicine. I have been in the institution for 26 years, 23 as chair of surgery, and the last three in the position that I currently have. As for my role, my office is entrusted with leading the care transformation process, in an effort to improve the care of our patients, the health of the populations that we serve and to decrease the costs of care – in other words, to increase the value of the care that we provide. In so doing, we work very closely with the Chief Health System Officer and with everybody in UW Medicine because it takes a village to make this happen.

Josh: And, Doctor.

Venu: I'm Venu Pillarisetty. I'm a surgical oncologist here at the University of Washington Medical Center and my primary focus is management of pancreatic cancer and other pancreatic-related diseases that need surgery. And I have been, with quite a few other people, helping to lead an effort in what's called ERAS: Enhanced Recovery after Surgery. I also have a role at the Seattle Cancer Care Alliance as the medical director of continuous performance improvement which really ties very well into the work that we're doing here at UW Medicine.

Josh: And Heidi.

Heidi: I'm Heidi Gray. I'm a Gyn-oncologist here at University of Washington Medical Center and I have several roles. My role in this discussion is I'm one of the surgeon champions of the ERAS pathway for open gyn-oncology surgery. My expertise is in gyn-oncology cancers, particularly ovarian cancer, uterine cancer, cervix cancer and also work at the Seattle Cancer Care Alliance.

Josh: You mentioned pathways and starting out this conversation here, let's talk about standardized pathways. What are they, what does that actually mean to you and what is the importance of having those pathways, why such a focus?

Carlos: A clinical pathway is a detailed description of the different tasks, interactions, procedures associated with the care – that is the diagnosis, the treatment, follow up – of a specific group of patients. Every interaction with the patient is defined. It's optimized and is sequenced -- that is placed on the right place in the process to improve the outcome and the experience of the patient. That's a clinical pathway. Now, standardization of these processes eliminates variability in care and variability, we know, results in unsafe, inconsistent and low-value care. So we want to convert that into a very efficient way to do it. That's why we standardize the clinical pathways. For our clinicians working in developing and implementing pathways, we can say this is the seal of UW Medicine, this is the "UW Medicine Way." If you have a standardized way of doing something, everyone around you shares the same mental model that you have. Everyone around you knows what to expect. It also brings up an easier way to teach people how to do something because you teach them, everyone teaches them pretty much the same way.

Josh: How much variability is there? First of all, just obviously, you went to school at a different time than Venu, different places perhaps that you all went to school and then working at different institutions, are we starting with incredible variables here in trying now to bring all this under one umbrella, if you will?

Venu: Yeah, you see that kind of variation even in the same institution, from surgeon to surgeon, or in the medical specialties from physician to physician. We really have found some dramatic improvements in a few areas that are hard to measure because of the introduction of pathways that are standardized across different physicians treating this same disease or doing the same operation. I would say one of those is the experience of the patient and how we're able to prepare patients for what is going to happen. We can tell them in clinic ahead of time, this is what you expect to happen, these are the kind of things that are going to be done to you, these are the kind of things that are expected for you to do. And then the nurses on the floor expect all those thing to happen. The patients then say, oh ok, it's day two, I'm supposed to be doing this. And for example, one of the things we asked them to do is to walk. I just rounded on my patient who had surgery on Monday, I just saw him this morning. On the board it listed how many times he walked and it was all checked off and he walked like 1.3 miles on the first day after surgery. Those kinds of things are really hard to measure. But when you see the patients, you can see this dramatic change from that previous experience of being scared and not knowing what is going to happen to you, which ultimately is kind of the biggest part of the experience for a patient, is knowing what to expect.

Josh: In beginning to build out these standardized pathways and these processes, obviously, you all have to be in agreement at the policy formation level before you can start to implement any of these things. What has that been like? How are you working together?

Heidi: Yeah, so I think that's an important factor, is who you're going to bring to the table to help design these and what type of teams are you going to look at. Obviously, there's within the hospital, different surgical groups have different ways of training or you know different approaches. And so the first step has been developing these pathways kind of individually or with individual programs. And Venu will probably talk about, there's now a really big push to standardize across the programs and the disease sites, if you will. I did want to just circle back to what you guys were commenting on a little bit before too about why pathways are important and you know what we're dealing with with variability just in terms of a very granular level. You know it used to be that you know in the clinic and in the pre-op clinics, you know residents and nurses had to memorize which attending liked to do

which way. So there was always this game of does Doctor X, you know, when you're doing your order set, Dr. X likes this and this and then Dr. Y likes this, this and this and the nurses would have to do the same thing in terms of their pre-op orders and their pre-op who likes what. And it's really amazing to kind of level that field, where the nurses can go in you know with the patient with the same diagnosis, same surgical procedure, different attending and say, this is how we're going to deliver the care and it's the same. And it really, you know, you kind of forget about how those times were not that long ago where everyone was trying to individualize the care and really to have some of that care be very standardized. I think this really is this amazing benefit and not just for the physicians, but for the nursing staff, for the care technicians, for everyone who's involved in that care.

Carlos: And that's a nice segue way to say that is why safety is compromised if everybody does it differently. Because no one is sharing the same mental model. No one knows what you have to memorize for every single individual any given pathway. And so you want to know why was this happening in medicine and why didn't we take steps earlier. And perhaps the reason is what you mentioned earlier, that we were trained at different times. People that were trained during my time, there was a clear emphasis on two elements. One is the individualism of medicine. You are responsible for your patient. Everything that happens to a given patient when the patient is in the hospital or is in your care in the clinic is your responsibility, and people took that very seriously and defended that concept for a long time. The other one is the hierarchy. You are the captain of the ship. So we have evolved, as have other domains of human endeavors in the world, into a team concept. We need to get a certain outcome. We need to have a certain product, if you wish, of the interaction with the patient, and that is best achieved through a team. And in order for a team to be working together, the principle is that every member of the team has a flat hierarchy. Every member of the team has an opportunity to speak up. Every member of the team knows what every other person is doing and therefore the focus is on the outcome, not on the person.

Josh: You've talked a lot about, we've all talked a lot about the UW Medicine way and standardization. It seems to me that this is sort of a cornerstone. It's patient-centered. Being able to say this is what we do is a key part of the UW Medicine way.

Carlos: Well, we define the UW Medicine way as something that has three elements to it. It's reliable excellence, it's mission-driven and it's patient-centered. By reliable excellence, we say everything happens all the time the same way. You can expect something to happen, much like when you get an iPhone, you dial a number, you get a sound that is ringing somewhere else and you get a person answering on the other side, hopefully. So you know exactly what's going to happen at every step of the way that. That is reliability. And excellence, because we want to do it the best way we can.

Josh: Doctor, you were talking about something earlier as well. You can't know that you're getting better if you don't have a baseline, if you don't have standards, and it sort of ties into the whole Japanese manufacturing, LEAN manufacturing, all of that. Talk a little bit about that and that importance there and the models that you're bringing to the table here from perhaps other industries.

Venu: On the whole, we certainly are looking at the way other industries do their work. And Dr. Pelligrini was essentially alluding to that in saying that it's surprising that medicine hasn't done that in the past. And if you look at, specifically the automotive industry, and at Toyota and what is now often termed as LEAN, that's being applied quite a bit to healthcare because the cornerstone of LEAN is around a few concepts, one of which is

standardization, and this idea that if you don't have standards, you can't improve. So if you don't already know what you do, how can you make it better. And then another really big part of it is getting the people who do the work to think of improving the work as their primary job rather than just doing the work. The goal is always how can we be better. And that's something that's intrinsic to the way we as physicians think anyway. So it's really nice to be able to formalize it and make it a part of the standards for how we do things.

Josh: Tell me a little bit more about ERAS and what does a standardized clinical pathway actually look like.

Venu: So ERAS -- Enhanced Recovery after Surgery -- is a set of concepts and practical ways of doing things that started in Europe about 20 years ago and are focused around returning patients or maintaining patients at kind of the optimal physiologic state. And most of the pieces in ERAS are designed around evidence-based medicine. So there is sometimes quite a bit of evidence, sometimes less evidence. So I mentioned earlier about walking. That's one of the kinds of things that we lead into in ERAS pathways is starting patients with really good education around what they're supposed to be doing before surgery and after surgery. Good nutrition, stop smoking, stop drinking before surgery. All the things that we know intrinsically could have some risk around the time of surgery. We set that up ahead of time. And then controlling a lot of elements of things that we do to patients, for example, how much fluid do we give the patient at the time of surgery through intravenous lines. That's always been something that's been quite variable and as we standardize it and typically reduce the amount of fluids we give, we learn from that and see how patients do afterwards. One of the big things that we really are working on is pain management and using what's called multi-modal analgesia, meaning that we use at least three different types of pain medications rather than relying purely on narcotic pain medications. So this is something that I think Heidi will be able to speak to in terms of what they've found by using ERAS and their reduction in use of narcotics.

Josh: Well let's talk about that, Heidi. Some of your experiences, your observations as you have begun this process.

Heidi: The first step is really doing your homework. So you know basically I just started reading and there's a just an abundance as Venu was saying of literature about ERAS. It's really been quite developed both here at University of Washington but also at other programs. And then you know the next step was don't recreate the wheel. So I went out and started talking to people that had already had a lot of experience developing these pathways. And so here at our institution we had a colorectal surgeon who was here so I met with him and discussed his pathway and then actually reached out to my colleagues at Mayo Clinic and asked about their experiences in developing their pathways and all of that. So that kind of started in the summer of 2015. And then met with the transformation of care office and Celeste Rind was really critical with kind of helping me not just move from where I learned about the pathways, but then how do you implement the pathways in terms of, you know, you need a lot of buy in, from all of the other elements. So it's not just what my ideas are about the pathway, you know sitting down and meeting with nursing staff, with pre-op nursing staff, with anaesthesia, with pharmacy, with all of these groups. Like when you start to make your list of all of these members of the team that your pathway is going to involve, physical therapy, nutrition, you really need to be quite organized and sit and have everyone in the room giving feedback because you're making major change. And so that process took about six to nine months of many meetings, kind of getting feedback about what we like and don't like about the pathway and then recognizing that when you have a start date of when you're going to implement and you

have to give education to your trainees, to your fellow attendings or nurses, and then you kind of have a go live date. And so for us that was in May 2016. And then we have to have some stopping, not stopping points but times where you're going to evaluate your data and you learn a lot through this process. It was for me really informative. I didn't really have an understanding of what all these other members of the team were doing for my patients until I literally sat at the table and had one-on-one discussions. And so it was very revealing for me to just learn and really value what so many people have been doing for many years for my patients. And so for me personally, it's been very valuable. It's really opened my eyes. It's a valuable process for any team, you know surgical team, medical team, to go through because you really get to the understanding of who's taking care of your patients and what their roles are and what they're doing. And that was a part or an aspect of developing a pathway I didn't really anticipate.

Josh: I would think it's interesting, too, Dr. Pellegrini, that Heidi just mentioned her eyes were opened in seeing how many people were involved, all of the different things within her individual little unit. You, as the chief medical officer, have to have that kind of vision and visibility exponentially. How do you keep track of all of this?

Carlos: There is an element of trust, without a question, but we say in God we trust, everything else needs data. [laughter] So what we do is we periodically review the pathways and we periodically review where are they with regards to very common parameters that we measure as effectiveness, measures of effectiveness of the care that we provide our patients. Part of it is, for example, knowing how many days there was a patient in the hospital after a given procedure. It's called the length of stay. So we aim at reducing the length of stay. Not just because the cost to society is less but because the cost to the patient, the biologic cost, the chances of having a complication, etc. is less. The ability to go home earlier, to be with their family earlier is improved, and so forth. Another parameter that we look at is the time that the patients spend in the intensive care unit. It's not uncommon after operations such as the ones that were discussed earlier, gynecological operation for cancer, that a patient needs to go into the ICU. So we say how much time was a patient in the ICU. Another parameter that we want to see what happens after the patient went home, how many patients got readmitted to the hospital. And so those are the measures that we're constantly looking at and we see greater or lesser improvement depending on the effectiveness of the pathway that was developed, and that allows us to focus on the pathway and say, what if we did x, y, or z and change it. Another concept that I wanted to discuss briefly in complement to what Venu was saying. Venu was talking about LEAN and the Toyota way of doing this when you are developing a pathway. You want to use as Heidi was saying evidence-base. You want to make sure that everything that is incorporated in the pathway has a scientific background and evidence to it. The Toyota way to do things was just to look at the flow and see how could you simplify the flow with the idea that any time you simplify a process, you make it more safe. And you make it more effective, more reliable. It can happen that way all the time. Nowadays, we're using other elements and those elements are related to the power of information technology and the upcoming artificial intelligence that is coming in there. So, an example of that might be, for instance, as you develop a pathway. There was a study that showed that if you have the doctors and the nurses remember that every time a patient who has had a heart attack was leaving the hospital they needed to go into rehab. That occurred only 15 percent of the time or 20 percent of the time. When you incorporate that into the computer and you made it part of a plan in the computer that was standardized and the doctor had to check, that improved to about 50 percent of the patients went through to rehab. As we develop pathways here, we say, well, what happens since rehabilitation is important, why don't we send everybody to rehab and have the team the opt out situation,

so only when the team says, no, the patient is not going to go to rehab because of blank, whatever the situation is, is eliminated. So, the use of information technology helps us do the right thing all the time. A lot more than other mechanisms might.

Josh: Is there a benefit as well that you convey to your practitioners, to your doctors and everybody else on staff, all those people you talked about, Heidi? And is that part of this process, you say this makes your job better, easier, etc., etc., so that there is a value. Because, at the end of the day, all of these people have to be on board with this, otherwise, yeah, sure I'll do that, I'll do whatever you tell me, they don't do it or they do it begrudgingly. Where's that line?

Venu: Well, that's absolutely the case and it's something that we've found with multiple pathways that we've worked on that everywhere along every point that touches the patient, from the physicians to the nurses to the physical therapists, it's really much easier when you know what's supposed to happen and when the patient knows what's supposed to happen. Every part of that interaction is easier. And then from a physician or attending physician standpoint, it saves so much time. So it sounds like this huge investment, and Heidi made that only three years ago into this, but I suspect she's found the same thing that I found in this, that it's just so much easier to take care of my patients. I don't really need to think about the patients who are doing well other than to go say hi and you know have a little chit chat with them. When I discuss with the residents what are we going to do, we don't have to really waste time talking about what are the minutia of what we're going to do for a healthy patient who's recovering appropriately. That means for that 10 or 20 percent of patients who are having a problem, having a complication, then the resident and myself and everyone else in the team, can really focus around how do we get the patient who's not doing so well kind of back on the pathway. And sometimes we even use that language, is the patient on pathway. Great, follow the pathway. There's really not much else to do.

Heidi: You know you have to invest a lot of time and energy upfront. At least, you know, I did because I came into this very naive. I knew nothing, as I said, about these programs but once I started to learn about it, it's really exciting. I mean when you look at the data and as Carlos was saying, you kind of sit there and are like I can't believe we haven't been doing this all along, like were we just, you know, that blind about these processes. So once you know, for us our pathways have been in place and now we're in that QI cycle where we're looking at how can we better improve it. And you know when you do any of these pathways, there's things that you expect, you know, what you want to happen and then, of course, the elements so that you don't expect. And for our pathway, which is for open gynecology procedures, which constitutes a wide range, it's mostly cancer cases but we do have about 30 to 40 percent that are benign or non-cancer cases, so it's a variable patient population and disease for the pathways. And what we expected is what we found, which we reduced our length of stay, we had stable readmission rates. We had high patient satisfaction scores and as we had discussed earlier, with introduction of the multi-modality analgesia, we dramatically reduced our narcotic use for the patients both in the hospital and then what we were discharging patients with, in terms of opioid prescriptions, which was a huge benefit. Some of the things we didn't anticipate, though, were that we noticed that our costs were the same even though we were reducing how long people are in the hospital. But our costs were the same and when we really dove in and looked at the data, some of the elements of the pathway that we added were high-cost drug use, particularly a drug called Alvimopan. And so when we institute a pathway you really want to not have variability within the pathway, meaning you kind of do an all-or-none approach to most of the patients. And so we found that when we looked at our data that most of our patients,

because they were using such less narcotics, and Alvimopan's main use is to counteract the effect of narcotics on the bowel, we looked at it and said, you know, probably about 20 to 30 percent of our patients are the only ones who are benefiting from this high-cost drug. Let's not across the board give everyone this drug because that was adding to our costs. Let's now decide post-op day 0, who do you think should continue on this and who shouldn't. And so we haven't, I mean our data is like six months behind and we just instituted this change in November, but I'm hoping that we will now see a cost benefit.

Josh: At the end of the day, Dr. Pellegrini, when you start to say we are being successful, what are some of the barometers? You mentioned some of the statistics before, but each day when you come to work how do you know you are moving the ball down the field?

Increasing safety, improving the shared mental model that the team has, allowing for the practice of medicine that results in patients being discharged earlier, each one of those three, for example, have significant value. They are a little bit more difficult to measure. The decrease of the length of stay can be quantified easily. For example, in some of the pathways that we have, it's not uncommon to see a 30 percent reduction in the length of stay or the complete elimination of the need for the intensive care unit. Patients were put in intensive care unit because that's what we always did. And right after surgery, we always went to the intensive care unit for sometimes as short as 6 hours. But that creates not only a significant risk in terms of handoff from one team to another and then back to the floor, etc., movements of patients from beds to stretchers to back to beds, etc., but the potential for misinterpretation of orders, etc., that that can lead to risk. So some of these are very difficult to measure. In general, if a pathway is used in about 80 percent or so of all patients with a certain problem or disease, all sort of eligible patients, the pathway starts showing in the experience of all other centers the benefit to use that pathway.

Josh: What role does the patient play in all of this? Our last episode, we focused on shared decision-making and educating patients. Where do they fit into this conversation?

Venu: From the beginning point, as I mentioned earlier, the education that we provide patients, now being standardized, is something that we also have prepared paper materials to hand them. So when I or my nurse in clinic go over and usually I'll go over things, then the nurse will go over things, about what to expect at the time of surgery, what to expect after surgery, what to expect when they go home. It's all written there. It's in a very clear format. It's essentially the same information that we have for the physicians and nurses except it's written in a different format so that everybody can understand it. So a typical patient would be able to look at it, it's got pictures, it says, OK, you're going to be doing this, this is what's going to happen. So their role, a lot of it is absorbing that, and then teaching it back to us and then repeating it and then really getting a good understanding of it and then making sure that they agree with what the plan is, right. Obviously, there is some of that feedback and what we've developed in terms of pathways has involved patients from the beginning in seeing what works, what are they happy about, what doesn't. So it's been a constant iterative process of getting to this point. And one of the things that Heidi mentioned about the early parts of pathway development where you have everyone in the room, it's a really humbling process where you suddenly realize, OK, so maybe I'm the captain of the ship, but I don't know how to do everything on that ship, just like a captain of a big ship doesn't know how to do every single part and can't run that ship without every single crew member. It's the same thing. It's really a nice process, ultimately that makes you respect everybody who does the work to take care of your patients throughout the entire experience. And for the patients, really, most of their care during their time in the hospital is not delivered by us, it's by the nurses, it's by the physical

therapists. So really appreciating that is important. And then ultimately getting those people to feed back into how we improve what we do is critical.

Josh: I would think, Heidi, that term humility is such an important one. If you can't learn, you can't grow. If you don't have an awareness of and accept your own limitations and shortcomings and then be willing to grow and learn and accept those.

Heidi: Yeah, and again, I think that was that unexpected benefit for me personally about developing a and that the process is, as Venu was just alluding to, about having a consistent message and being able to engage the patients from very early on in the preoperative and setting those expectations. Patients love that. And patients are like, yes, that's good for me. So when the nurse comes in to get them out of bed post-op day 0, they understand that. It's not, oh wait, I have to wait for my doctor to approve. I'll sit there when I'm in my pre-op and I'll just do a couple highlights with the patients, you'll be able to eat, you know right away, we're going to get the Foley catheter, the Foley catheter will be removed, you know, the next day. We all like to check those boxes, you know. Venu was discussing one part of the pathway. You know we're on radio so you can't see, is using this whiteboard which is a way to communicate with the patients what's going on with them and and communicate with the nursing staff and there's literally checkboxes that patients can, you know, what milestones they're moving through with the goal of going home. Because as you said patients want to go home. They don't, nobody wants to be in hospital for longer than they can. And so you know for me, it's just been really rewarding to be able to give patients who are very scared, very vulnerable, this is what's going to happen to you during this time period. We're going to take great care of you. We're going to help you get to your next step in treatment. And patients really, really, really appreciate it.

Josh: Now, we have two surgeons here, Dr. Pellegrini, and obviously I would think that the standardization can be applied broadly throughout the UW system. Talk about how standardization can be applied throughout the system to improve the performance here.

Carlos: You're correct that standardization can be used for a number of processes. For example, a patient who has diabetes and goes to see a doctor. We have protocols built in that allow the team, the doctor, the nurse, the social worker, the pharmacist, the endocrinologist associated with that patient, to know what to do when certain numbers return. You know you measure certain numbers in the patient's diabetic, the amount of sugar that is in the blood of the patients, something that we call A1c hemoglobin. That's another measurement of how well the diabetes is control. And you have certain things that you're going to do, certain frequency with which the patient is going to be called. So it's not just one time but something happens in ten days, another blood check is done. The results are channeled in a certain way. People see that somebody is supposed to call the patient, is supposed to bring the patient back in or change orders, etc. So we have it for patients who have heart attacks and that is usually not a surgical procedure and are in the intensive care unit, it's a completely different situation and these patients go through a number of medications, through a number of processes, that include also walking, moving starting to eat, etc. and return to their home. And it's the same the same type of process. It's just determining what are the elements that are going to be acting up on that patient and eliminating in that way the anxiety that most patients have associated with the unknown. That is something that we know most patients that come into a hospital, several studies have shown, you have a certain degree of anxiety associated both with the disease that they come in with and the treatment options that they have. And by telling them, this is what's going to happen day-by-day, hour-by-hour, you eliminate that anxiety and you put him on a path to recovery from the very moment they come in the hospital.

Josh: Which is the UW Medicine way.

Carlos: Which is the UW Medicine way.

Josh: So, as we wind up this conversation here, you have to get back to rounds, I assume, any last thoughts? Anything we didn't talk about that you think is important or additional thoughts on this process here that you want to convey to your colleagues.

Venu: I think the biggest thing is that even though it looks difficult on the outset, you will get 100 times the reward of the work that you put into it, both in terms of how your patients do, but also in terms of your experience of caring for the patients. So, I really think it's something that everyone should be involved in improving. The work is extremely satisfying.

Josh: Heidi.

Heidi: Yeah, I would echo those comments. I mean, besides the joy of kind of seeing the return on your investment with reduced length of stay, patient satisfaction. It's just an enormously useful process to go through and it makes the next step of constantly trying to improve and looking at your own individual programs and your own care and how to improve. And it really helps you how to look at all those processes easier once you start this process. The hardest part is diving in. As I said, you know, I was very naïve, I didn't come into this process knowing a lot and I had to learn a lot. But it is then so valuable and has really helped me now think about in my day-to-day practice all that, you know what's our next step, how can we improve this, how can we improve enrollment on clinical trials which is something I'm very passionate about. You know just starting to go through these processes and how we're thinking is really how we should be approaching medicine. And I'm excited about the next steps.

Josh: Dr. Pellegrini, you get the last word. Are you excited about where we're going? You have a tremendous passion, enthusiasm for this, whether it is in real life or as an animated character on the care transformation website, which I encourage anybody who's not seen that you make a wonderful cartoon character.

Carlos: Thank you for the advertisement. [laughter] The development of a pathway is extraordinarily constructive for every individual as an individual because, as Heidi pointed out, this study of the evidence plus the discussion of that evidence with the team members that are working with you every single day creates a bond within that team that is invaluable. And I just wanted to discuss the issue that a lot of the physicians that are uncomfortable with the use of pathways, talk about pathways as cookbook medicine and they tend to feel belittled by the fact that now everything is written down. I went to school to have a liberal thought, to have a way of creating the pathways for myself. And so that sort of strikes against that. I think that it is a concept of the past. The best cooks actually use cookbooks or write cookbooks.

Venu: You know what Dr. Pellegrini just mentioned about cookbook medicine made me think of something that I learned while watching one of those Netflix series on cooking, which is that Michelin Guide, when they decide which restaurants get one or two or three stars, one of the primary things that they're looking for is consistency. So that's really where that reliable excellence comes in. And you do need to have it written down because if you have a different person cooking the dish, you don't want it to taste different from day to day.

Carlos: And lastly, when you see that the residents and the patients both, the people that are working around you, see the smoothness of the care that is being provided, the reliable way and the patient-centered way in which things evolve, it makes you feel pretty good about that.

[Musical outro]

Josh: Dr. Carlos Pellegrini is the chief medical officer for UW Medicine and vice president for medical affairs, Venu Pillarisetty is the associate professor of surgical oncology here at UW Medicine and Heidi Gray is an associate professor of gynecologic oncology. Thank you all so much for such a fabulous conversation.

All: Thank you.

Josh: So that'll do it for this episode of The Transformer. Thanks so much for listening and you'll definitely want to listen to our next episode because the bottom line is it's all about the bottom line and the financial realities we're all facing. I'm Josh Kerns. I look forward to talking with you again soon on the next episode of The Transformer.