

MS Podcast - Road to Resilience: Triple Transplant Full Transcript

00;00;04;20 - 00;00;27;09

Stephen

For the Mount Sinai Health System in New York City, this is Road to Resilience, a podcast about facing adversity. I'm your host, Stephen Calabria. Mount Sinai is director of podcasting. On this episode, we welcome doctors Annie Anyanwu and Doctor Sandy Forman, who pulled off the very first triple transplant of a heart, kidney and liver in New York State history.

00;00;27;09 - 00;00;28;24

Stephen

Gentlemen, welcome.

00;00;28;26 - 00;00;30;02

Dr. Florman

Thank you.

00;00;30;05 - 00;00;45;27

Stephen

So our first question really is a general one. How do doctors like yourself get involved in transplanting multiple organs? I assume this is not something that most people have to go through in medical school.

00;00;46;00 - 00;01;13;23

Dr. Anyanwu

Well, I think it's how do we get involved in transplanting organs in the first place. So I think we the multi-organ transplant is just a combination of different transplant procedures. So basically it's a combination of doing for in this case a heart transplant a liver transplant and a kidney transplant. And really the the only way differs. The main way differs from transplanted single organs.

00;01;13;23 - 00;01;45;21

Dr. Anyanwu

Just bringing all these three organs together so that they have various different pathways by which doctors end up transplanting organs, for example, from the thoracic point of view, because I'm a cardiothoracic surgeon, we, do heart surgeries and lung surgeries, and some of us specialize in transplanting these organs as well. The pathway in abdominal sort of abdominal transplant, which is the bulk of transplants is done, are in the abdominal organs, which stop the flow and can expand on the pathway.

00;01;45;21 - 00;01;47;08

Dr. Anyanwu

That's a bit different how you end up.

00;01;47;14 - 00;02;05;26

Dr. Florman

Or why does a patient need all three of these? We do these because there's a need, because we had a patient who had the need for a heart transplant, but couldn't have it because he also had kidney failure and he didn't have a good liver. So the patient drove this not so much that we thought, hey, let's just replace a bunch of organs.

00;02;05;28 - 00;02;32;20

Dr. Florman

But, you know, follow up with what doctor on Anyanwu said, transplant surgeons for the abdominal organs go through general surgery and then train in liver, kidney, pancreas, intestine transplant. And ultimately most specialize in one or several of those. So the expertise lies with the individual and what the experiences. We have a lot of experience in each of these organs individually.

00;02;32;27 - 00;02;42;01

Dr. Florman

So when a patient comes and has the need for multiple organs, because that's what their disease process requires to be fixed, we do it.

00;02;42;03 - 00;02;50;01

Stephen

What is the history of this kind of transplantation of multiple organs? Is it something that's relatively common or pretty rare?

00;02;50;03 - 00;03;15;02

Dr. Florman

Historically, it was rare, but, the better the outcomes have been with each organ individually and the better the techniques have become. And the immunosuppressant medications have become. The, indications have expanded. So historically, we wouldn't think of doing a heart and a liver transplant, particularly those two, because the the expertise needed is on both sides of the diaphragm.

00;03;15;04 - 00;03;39;14

Dr. Florman

And so it really requires not only the expertise in each of those organs, but it requires the surgeons and the team's medical and surgical pre transplant in the operating room and after transplant, to have the willingness and the ability to work together. And that might be one of the things that separates our ability to do this from others who haven't done this.

00;03;39;16 - 00;04;06;28

Stephen

Not having gone to medical school, this is not my area, but I have to imagine that the transplantation of multiple organs like this is something that, wasn't attempted a whole lot because it was pretty risky. Is this something like this, this particular transplantation of these three organs? Is it something that had been attempted very often in New York State specifically?

00;04;07;01 - 00;04;31;24

Dr. Anyanwu

Well, it's not something that's attempted often anywhere, period. Like, the, the in the United States of the transplants I tracked. So we know how many transplants are done every year. And it's been tracked since the late 1980s, and I think on record in the United States, about somewhere like 54, 55 patients have had this particular operation over the last 30 years or so.

00;04;31;26 - 00;04;53;23

Dr. Anyanwu

So it's not a common operation, but part of the reason it's not common is because we don't have patients that need it. So just to put in perspective, every there are several thousand patients get a heart transplant or a liver transplant or a lung transplant. But every year, the number of patients that would need, for example, a heart and a liver was is small.

00;04;53;23 - 00;05;27;06

Dr. Anyanwu

It's going to be less than 100 in the country. So the need is not is different because thankfully most patients don't suffer. And stage disease was the reason we do transplantation is basically because an organ has been damaged beyond repair. So you don't usually have end stage disease in in multiple organs at the same time, thankfully. And then when you do a lot of patients that have such multiple what we call multi-organ failure, a lot of them, so sick that they're not really candidates for surgery.

00;05;27;06 - 00;05;47;12

Dr. Anyanwu

So then there's selection that goes on. So to be a patient who has multiple organs failing and yet you're a candidate for transplant. So we're talking a very few patients. And then to find hospitals or doctors, you know teams that are able to do the surgery. And that even narrows it down even more. So these are rare, rare procedures.

00;05;47;12 - 00;06;01;12

Stephen

Generally speaking, because these are so rare. How does a doctor prepare for something like this. And in this specific case, how do you procure the three organs at once for a patient who is in dire need of them?

00;06;01;19 - 00;06;23;17

Dr. Florman

Well, the preparation is to get a little sleep before you do it. You know, the funny part is we procure these organs from donors all the time. And most donors, we try to take the liver, the kidneys, the heart, and transplant as many people as possible. Good donor can probably save eight people's lives with solid organs.

00;06;23;17 - 00;06;46;14

Dr. Florman

So it's not unusual to take those organs out. But we need all three organs from the same donor. And the rules allow for that. The sickest organ drives it. And so in this case, the heart is the sickest organ and was life saving for this patient. And so the liver and the kidney, by design, by the rules that are allowed in the country, they are allowed to be given to the same patient.

00;06;46;14 - 00;06;52;11

Dr. Florman

So that part's not that different than what we normally do. It's just having a patient that needs that.

00;06;52;13 - 00;07;05;11

Stephen

What kinds of ethical dilemmas do you run into regarding who receives an organ and who doesn't? Are there any guidelines around that? Or can just anyone, at any time receive an organ that they need now?

00;07;05;11 - 00;07;27;01

Dr. Florman

Transplantation is highly regulated everywhere. And there are we have large groups here that review this and what we call recipient review committees, where we present the patients and what their needs are. There are significant ethical considerations, especially when you're going to give more than one organ to one patient. It means that those two organs, those three organs weren't used in a different patient.

00;07;27;04 - 00;07;49;00

Dr. Florman

So you really have a responsibility to do this ethically. We we don't do this for futility. We do this because we really believe the patient's going to come out of this on the other side and be able to live life in what doctor on Yahoo said was absolutely accurate, that, most of the patients who would have multiple organ failure would never be dreamed of as candidates.

00;07;49;00 - 00;07;59;29

Dr. Florman

So it just lines up that when we found a patient or patients that needed more than one organ and they had a meaningful chance for survival, that's how we try to make those decisions.

00;08;00;06 - 00;08;14;26

Stephen

But let's say there is a patient who perhaps engages in certain behaviors that damages a particular organ. How do you navigate that? Does that person not receive that organ or are they less likely to?

00;08;14;29 - 00;08;41;07

Dr. Florman

Well, it's a tricky thing because many of our diseases are caused by people's behaviors. Some aren't. Some are things that people are born with. Some are things that they've potentially participated in and done to themselves. But, we don't judge that. We're just trying to provide care. We have some guidelines. We're not doing people who are actively doing certain things, and they have to commit to a certain lifestyle, and they have to be willing to take the medicines afterwards.

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Dr. Florman

And there's a committee not just made up of surgeons and not just made up of medical people, but also, we sometimes when it's indicated we have ethicists, we have social workers, we have all different kinds of people who participate in the process to make sure that we're making rational decisions. And sometimes it is controversial.

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Dr. Anyanwu

And, part of the, evaluation for any organ transplant involves a social worker and often sometimes even a psychiatrist. And if there's, any of these behaviors that we feel could potentially threaten the benefits of the organ or the survival of the patient for example, let's say a patient, drinks a lot of alcohol and that we think that might damage the transplanted organ.

00;09;24;14 - 00;09;46;03

Dr. Anyanwu

Then the patient would have to have in place a strategy by which we think that the patient can stay off the alcohol and that that's going to succeed. So we involve the social workers and a whole team to evaluate and have a plan in place to prevent that from happening. And usually most of the time it's successful, sometimes it's not.

00;09;46;03 - 00;10;12;15

Dr. Anyanwu

But, we, we would certainly through our due diligence in that way and try because as you said, there are ethics for each person you transplant. You end up denying another person an opportunity to transplant. So what we want is we want to do our best to make sure as many of these organs end up in recipients, in patients who will take care of them and get a long, long

benefit from them.

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Dr. Florman

Of course. Well, this is a critical point. So there are about 120,000 people in the United States right now waiting for an organ. And many of them, most of those people are actually waiting for kidneys. About 90,000. About half of them won't ever get a kidney. There just aren't enough organs to go around. So how we use the ones that we do have is, highly regulated and involves a lot of ethics and moral considerations.

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Dr. Florman

We do, as a country give extra priority to children if you're under 18. That sounds fair. But at 24 year old and a 64 year old get the same consideration based on age. Maybe that's right. Maybe that's wrong. These are very difficult issues to try to sort out and try to understand who should get more priority or who should get less.

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Stephen

Why? Kidneys? Why are kidneys the most in-demand organ?

00;10;59;01 - 00;11;18;11

Dr. Florman

Because of that, there are about half a million people with kidney failure. United States, and 90,000 of them are on the kidney transplant waiting list. Probably if we had more organs to go around, a lot more of those people would be considered. And also, you'd be shocked by the success, the success of kidney transplant and liver and heart transplant are remarkable.

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Dr. Florman

So as the success has improved, so have the indications. And we've we used to not transplant people over 50 than over 60 than over 70. And we've done the kidney transplant here in an 86 year old. That's not going to be every day. And it's not going to be every person but their age doesn't seem to be the limitation anymore.

00;11;35;23 - 00;11;45;25

Dr. Florman

So the indications have expanded, which means there are more people waiting and yet there aren't enough organs. So if there's a big plug today, it's, donate your organs.

00;11;45;27 - 00;11;55;17

Stephen

Just as an aside, though, we heard a few years back about the 3D printing of new organs. Is

that a thing? It should. We should we be optimistic about that?

00;11;55;19 - 00;12;12;10

Dr. Florman

Well, you heard about it. So it's a thing, you know, hope springs eternal, and I'm sure there's optimism. There's. We're not there yet. There's a lot of buzz around about using pig organs. That's getting closer, but it's still not today.

00;12;12;12 - 00;12;32;08

Stephen

Now, before we get to the patient himself in this situation, how do you choreograph a triple transplant among multiple teams? What does that look like? How do you do that? It's, I imagine, difficult enough with one organ, let alone with three.

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Dr. Anyanwu

Can I? I think as surgeons, we take care of many complex patients scenarios. So this is this is one of them having to, you know, execute such an operation. But there are we are used to our surgeons dealing with complex scenarios, difficult procedures, procedures that require multiple disciplines. So we actually do that or very often as surgeons we work in teams.

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Dr. Anyanwu

And we we not infrequently have to involve other specialties so that we're used to. So we're used to working and coordinating with each other on various operations which are not necessarily transplant procedures. So when it comes to transplantation, it's it's no different. So we we do what we do out like an inquiry center like Mount Sinai is, is all about team based medicine.

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Dr. Anyanwu

There are some things that we do that, you know, isolated practitioners and can deliver the treatment. But for most of the treatments we do it. So even within just doing a heart transplant or a liver transplant, only it's there's still a lot of, you know, coordination and, going on. So I think adding, you know, a heart transplant or a liver transplant or a kidney transplant, I don't think that really makes, it it doesn't really.

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Dr. Anyanwu

It's not as hard as it sounds in terms of the complex. And we do a lot of we've been doing multi organ transplant for years. So we do have long transplants. We do heart kidney transplants liver kidney you know kidney pancreas. So there's it's not a new concept but it's just that we're doing you know three at the same time.

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Dr. Florman

And here I thought the heart surgeon was going to say I just tell them what to do. And they do it. It's not quite like that. I mean, we have a very good rapport, and I think this is one of the special things about Mount Sinai and what I enjoy about being here. We have expertise in heart, obviously monstrous.

00;14;31;28 - 00;14;52;09

Dr. Florman

And and heart surgery and and heart transplant. We have expertise in liver transplant. We've done 6000 liver transplants, expertise in kidney transplant. But you also have to have expertise in the medical care. Let us not leave out the anesthesiologist the ability to manage a patient like this intraoperative leaf or whatever it is, 15, 18, 20 hours is extraordinary.

00;14;52;15 - 00;15;13;01

Dr. Florman

And they're very few places that can put all of this together without playing the blame game when something goes wrong. And we've learned how to disagree and we've learned how to take care of patients together. Who's going to manage the fluids afterwards? Who's going to manage the immunosuppression afterwards? It's a little different for each organ. So, it really requires a true team.

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Dr. Florman

And I think that's special. And that's probably one of the reasons why this doesn't happen at a lot of places.

00;15;18;22 - 00;15;36;27

Stephen

And to that point, Doctor Forman, you've talked about how there are only a few places in America that could pull off an operation like this. What is it do you think about Mount Sinai, other than the teams that you mentioned technologically, culturally, perhaps about Mount Sinai? What do you think it is that makes this place?

00;15;36;27 - 00;15;58;18

Dr. Florman

I think there are lots of places that have extreme expertise in liver transplant, lots places of extreme expertise in heart transplant or in kidney transplant. It's bringing that all together, with the medical teams, with the anesthesiologist, with everybody involved. It just practically doesn't happen that often. Particularly when you cross the diaphragm. I live on the on the lower side.

00;15;58;18 - 00;16;21;09

Dr. Florman

He was on the upper side. Heart and lung. They talk to each other every day. They speak the same language. Livers, kidneys, pancreas. We tend to speak the same language, too. It's it's when you try to combine that, that it's it's more challenging. And there aren't a lot of places that want to take on this type of transplant with people that are this sick, because the chances of success are dramatically lower.

00;16;21;09 - 00;16;26;24

Dr. Florman

Any time you add one more organ, the chances of success go down.

00;16;26;26 - 00;16;49;16

Dr. Anyanwu

And I think also they obviously the technical aspects of the surgery because we're surgeons, I'm very different and need a lot of modifications. So for example, Doctor Florian is going to be doing a liver transplant on a patient who's just had a heart transplant, and the chest is still open and the patient's on a kind of a bypass machine to circulate the blood, which is not usual.

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Dr. Anyanwu

And I'm doing a heart transplant, which we have to conclude on a patient who's just had a liver transplant. It's it's very different. And, and I last doctor months has been able to have teams that can work together and do all these little parts that they all, you know, gel in the middle. It's, it's heart is well, it's harder.

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Dr. Anyanwu

And I think that's probably why a lot of, of, of hospitals can't pull it off. And even like the anesthesia you mentioned, like for the whole procedure you would have about at least two teams of any sociologists because the anesthesia for doing a liver transplant is very, very different from a heart transplant.

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Dr. Florman

Well, it's highly specialized. We have a separate liver anesthesia transplant team. We have a separate heart anesthesia transplant team. And these are outstanding clinicians. But we actually switch teams during this operation. The heart anesthesia team will switch to the liver team when I start the liver transplant. But amazingly, they stay around and they all talk to each other because the fluid management, the blood management, the how do you manage these patients?

00;17;56;13 - 00;18;17;08

Dr. Florman

Intraoperative is dramatically different between the two organs, which might be something easily overlooked. But for us this is about as important as it gets. He uses a bypass machine. They research the blood around the heart so that they can remove the heart. There's no heart, in liver. We don't necessarily have to do any of that. So it's just dramatically different.

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Stephen

And that brings us to the patient in question. Matt Godby, what were the facts of his case, initially when he came to you and what jumped out at you?

00;18;28;07 - 00;18;50;27

Dr. Anyanwu

Well, he was a gentleman who had already had a heart transplant many years, like three decades before. So that even brings another ethical question in that he's getting a second transplant. And in screening for the second transplant, one of the problems with, with transplantation is the medications have a lot of side effects, and you have to take medicines to stop your body rejecting the organs.

00;18;50;27 - 00;19;19;01

Dr. Anyanwu

And these medications have side effects, which include some damage to the kidney. So over the years his kidneys haven't been active, have been declining in function. And then when the heart is failing, which his heart has been gradually failing over the last, say, five, ten years, it then puts a lot of back pressure of blood onto the liver, because the liver just is underneath the heart, and his liver gets congested with what we call congest, which is full of blood engorged with blood.

00;19;19;03 - 00;19;43;28

Dr. Anyanwu

And that engorgement of blood starts damaging the liver, and the liver starts getting scarred and you get stuck in scar tissue for me. So his liver was now getting disease too. And the problem we faced is that if we were to do another heart transplant and just transplant his heart, very likely during the operation, the liver would fail completely and then he wouldn't survive it.

00;19;44;00 - 00;19;53;21

Dr. Anyanwu

And then the kidneys was also failed. But when kidneys fail, you can go on dialysis. So the only solution to try and save his life was to transplant those three organs.

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Dr. Florman

Yeah. I will point out we we've. This is not something you jump into. We've had a gradual increase in experience. So it was only maybe two years or so years ago that we did our first

heart liver transplant. That was a big deal. These are all a big deal. And we've probably done a dozen of those now. We've done many heart, kidneys, many liver, kidneys.

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Dr. Florman

And so putting that all together, we all got together and said, you know, there's no reason we couldn't do this. And it makes perfect sense that this is what he would need. So remember, this is driven by the patient. It's not driven by us offering a procedure. It's driven by the patient with the patient needs. And then I would be remiss, we would all be remiss to say without a donor, there is no transplant.

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Dr. Florman

So it's this is only through the gift of life that a family in the worst time they can imagine when one of their loved ones has a stroke or an accident, agrees to donate their organs to try and save somebody else's life. So there is no transplant without the donor, and there is no triple, double, or any transplant without the patient who needs that operation.

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Stephen

And to the point about the patient. The show is called Road to Resilience, and Mack's story is, if nothing else, a resilience story and incredible resilience story. What role does a patient's resilience play in the likelihood that they'll even receive the transplanted organs, let alone if they'll, come out the other side? Okay.

00;21;17;02 - 00;21;40;08

Dr. Florman

Oh, I think it's a great question. I mean, this is a brave patient. I'm not sure everybody's signing up to have their heart, liver, heart again, liver and kidney replaced. I mean, the risk for this is quite real, quite substantial. And so I think he his story is remarkable. His daughter, he's an ems sky, his daughter resuscitate him when he has a cardiac arrest, he makes it into the hospital.

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Dr. Florman

He ultimately survives enough only on machines, and only because of the incredible medical care that he gets, including dialysis, including, heart pump, and is ultimately able to survive long enough for us to find organs and do a successful transplant. It's a remarkable story about resilience.

00;22;00;24 - 00;22;08;16

Dr. Anyanwu

And get back to working within two months of surgery to yeah, going back to work, which is truly amazing.

00;22;08;17 - 00;22;22;25

Stephen

Extraordinary. Yeah. Now, this being an operation that required multiple organs, multiple teams, so much coordination, what was going through your minds as the surgeons in the hours before the first incision?

00;22;22;28 - 00;22;29;09

Dr. Florman

I'm hoping that he starts around 8:00 at night so I can start around 8:00 in the morning.

00;22;29;11 - 00;22;37;19

Dr. Anyanwu

Well, we. Well, for us, it's really like any other surgery. We just, you know, we plan for it. Like we plan for any operation.

00;22;37;21 - 00;22;54;21

Dr. Florman

We meet and have a cup of coffee, literally, usually before these and we map out how are we going to do this and who goes first? Which catheters are we to put? Are we going to put which side are we going to put the catheters on. It's different for him than it is for me. And we both try to make sure that all the teams are organized and ready for this.

00;22;54;23 - 00;23;17;00

Dr. Florman

And it's a tour de force. There's just no question about that. And then we coordinate the donor. We have to both agree that the donor is appropriate for all of these organs. We have to send our teams to go get these organs often, bring them back. The timing of this is critical. And then we understand each other when when he replaces the heart, he lets me know where he's at.

00;23;17;00 - 00;23;35;00

Dr. Florman

And at a certain point I come in, do the liver, do the kidney, and he comes. He's readily available. He's still here, the teams are still here. There's a there is a lot of coordination effort. But at the end of the day, what we do is the same thing we do. If it was just the liver alone, the heart alone or the kidney alone, but it is a dance.

00;23;35;02 - 00;24;01;08

Dr. Anyanwu

But the preparation is, it's very simplified because it didn't really start that day or the day to day at the surgery actually starts weeks, sometimes months before. So doctor, Foreman and I would have already met and planned how we're going to do a particular surgery. And, for example, we have a patient now who also had a previous transplant who needs a heart, liver and kidney.

00;24;01;08 - 00;24;16;00

Dr. Anyanwu

But it's a much more complex scenario than this one. And we met about four weeks ago planning what we would do. So whenever we get to do the patient's operation, we already have our plan in mind and we just put it to place.

00;24;16;00 - 00;24;36;02

Dr. Florman

But tell them the punchline. We're having up a cup of coffee and a patient stops to say hello and waves to him, and it turned out to be the patient that we're talking about, that we're talking about, which was which was remarkable. You know, most of the time we don't actually talk to each other the day of the transplant, other than make sure that we both agree on the donor because we've already had these discussions.

00;24;36;02 - 00;24;41;04

Dr. Florman

We know it's coming. Just tell me what time. You know, we're going to go and we go. Yeah.

00;24;41;08 - 00;24;56;29

Stephen

So between your experience in the field, your preparation for a given surgery and the amount of support you have from your respective teams, it's not like you're stepping into the operating room and the true weight and emotional toll hits you.

00;24;57;01 - 00;25;13;03

Dr. Florman

No, no, but I will acknowledge. I mean, I've done a couple of thousand transplants. I can tell you, this one, you know, these all give you, you want the patients to do. Well, you don't want to do this and have a failure. Nobody wants to fail. But the stakes are high, and there are people who don't make it through it.

00;25;13;03 - 00;25;20;24

Dr. Florman

So you have to believe in your in your decision making. You have to believe in your team. You have to believe in your partners, and the patient has to believe in you.

00;25;20;26 - 00;25;35;26

Stephen

Well, to your point, the use of the word failure, what determines success or failure? If the patient survived six months or a year and then perhaps passes away from something else, that's a success?

00;25;36;03 - 00;25;55;12

Dr. Florman

Well, I think the failure surgeons are most concerned about is there's a real risk for intraoperative death. You can die in the operating room, do this. Doing this either from the heart, from the liver, from both. You can die immediately afterwards. I think getting out of the hospital is a big triumph. You know, we have a rule.

00;25;55;12 - 00;26;18;14

Dr. Florman

We don't pound our chest till you go home and stay home. But, yes, I mean, people die. That's that's the nature of life. So. But, you know, how do we measure success in the world of transplant and insurance companies and oversight? One year of survival is a monstrous measure of success. But, you know, the first part is to get out of the operating room and to survive the operation and go home.

00;26;18;16 - 00;26;47;13

Dr. Anyanwu

And really, we want to basically give the patient the opportunity and all the the best shot at surviving in the long term. So basically, that's what we're trying to achieve. As you say, they could still succumb to an infection or stroke or a cancer and and not survive. You know, a year or 2 or 3 later. But we want to put them in the best position that we can from the get go, which will be a patient, you know, having all these organs functioning.

00;26;47;16 - 00;27;09;29

Dr. Anyanwu

The patient recovered no infection. And the patients, you know, goes back home to live an independent life. And then hopefully with the the team taking care of the patient with medications on the patients first will hopefully get long term, you know, improvement in quality of life and survival. Sometimes it doesn't happen, but most of the times it does.

00;27;09;29 - 00;27;24;21

Dr. Anyanwu

Most of the times if you can get the patient home in a in a good, you know, good health condition for the first 612 months after after surgery, most of those patients will go on to get years of benefit from transplant.

00;27;24;23 - 00;27;36;02

Dr. Florman

And I would point out, this particular patient does not leave the hospital without a transplant. He he dies in the hospital. So, you know, it's always a risk benefit consideration.

00;27;36;04 - 00;27;54;17

Dr. Anyanwu

In fact, this particular patient almost died. It was like Christmas last year. He was dying. We had to rush him to the operating room some, some time. I think it was just after Christmas to put in these heart pumps to save his life. He wouldn't have even have survived till the new year. It was. It was not that bad.

00;27;54;19 - 00;28;13;26

Dr. Florman

But then, remember, I mean, we talked a little bit about this. We can't do this unless we believe we're going to be successful. Because whenever we take an organ for one person, we've taken it away from somebody else. There's a lot of, weight of that and responsibility that goes along with that to try and make decisions that are sensible and that aren't futile.

00;28;13;28 - 00;28;33;22

Stephen

Well, also, in those sorts of situations where it is a true emergency and this patient is going to die if they don't receive this organ immediately, I imagine those sorts of conversations and ethical dilemmas are further enhanced because you're operating on such a limited timeline.

00;28;33;24 - 00;28;53;21

Dr. Florman

We're used to this and these types of complex decision making. These are not made alone. No one person gets to say yes or no. But there are teams involved in this. But we really want especially in patients this sick, this complex. We really don't want to do futile operations. We want to do this because we really believe they're going to make it.

00;28;53;23 - 00;29;05;10

Dr. Florman

The proof is in the pudding. You know, he did fantastic and so did the next patient. But if one doesn't make it, it doesn't mean it's the wrong decision. These are unbelievably high risk cases, doctor.

00;29;05;10 - 00;29;29;23

Stephen

And you've talked about how it takes a village to get a patient through a procedure like this. We've touched upon the role of teamwork, here. But could you reiterate, like, how many teams truly, work on a patient like this? I don't think either of you folks would ever say that. It just comes down to the surgeons.

00;29;29;29 - 00;29;34;10

Stephen

It comes down to, like, the entire unit working as almost a symphony.

00;29;34;13 - 00;30;07;28

Dr. Anyanwu

It's an entire unit. Like, for example, the the. We haven't talked about the intensive care, for example, the effort in terms of the nursing care and the the physicians taking care of the patient in intensive care in the first say, week after a combined organ is phenomenal. Like, we, I mean, we put in a lot of work, but in a way pales in comparison because we might focus very heavily for, say, 24 hours in doing the surgeon, fixing the patient.

00;30;07;28 - 00;30;18;14

Dr. Anyanwu

But without what comes next, the patient stands no chance. Like it's it's a real rough road for the next week or two to get them through.

00;30;18;16 - 00;30;38;10

Dr. Florman

It's I will say to to get them to the surgery the the cardiologists, the nephrologist, the hepatologist, the intensive. Everybody taking care of them leading up to the surgery is equally as complex. I mean, I've always people say, well, how do you operate for so long? I don't know about you, but for me, every operation feels like it was 20 minutes.

00;30;38;10 - 00;30;56;07

Dr. Florman

I mean, I'm in my zone. I'm doing my thing. I do what I love, and we do. We tend to get a lot of the glory, but it's it's it's we. This is what we love doing. I mean, but we got to do it with other people and manage this in a way that the patient succeeds and that is successful and that there's the trick.

00;30;56;09 - 00;31;00;15

Stephen

Could you talk about the role of nurses and nurse practitioners on your teams?

00;31;00;18 - 00;31;25;23

Dr. Florman

Wow. You know, the doctors get so much credit. But look, none of this happens without everybody. I mean, the nurses are a huge part of this. In that operating room during either our portion of the procedure are multiple surgeons, mostly nurses, y'all. Just there's also a veritable army of nurses. Perfusion is to man some of these pumps circulating nurses who get the equipment that scrub nurses who pass us the instruments, this is all part of it.

00;31;25;23 - 00;31;41;22

Dr. Florman

I can't have somebody who's used to passing a hard instrument pass me my instrument. So I need the liver people to come. And and they know their job. They know what I need before I ask for it. That's the sign of a great nurse. Love the nurses. And none of this is possible, of course,

without them also.

00;31;41;24 - 00;32;03;00

Dr. Anyanwu

And really, the entire transplant process is run by our nurses. So like we have, we call them transplant coordinators, but they're they're largely nurses and nurse practitioners that it's in terms of the patient care, an organization that goes around, you know, putting everyone together. These coordinators run the show. You can't do it without you.

00;32;03;00 - 00;32;23;18

Dr. Florman

Think the complexity of the transplant, setting this up, the transportation to send the team to another hospital, in another city, the airplane, the ambulances getting that back, setting up the operating room, the blood bank, all those logistics. If he and I were responsible for them, I don't think any of this would ever happen. This is done by our our our nurses and our nurse practitioners and our coordinators.

00;32;23;23 - 00;32;33;02

Stephen

And what do you think this procedure specifically says about the future of transplant surgery, both here at Mount Sinai and more broadly?

00;32;33;04 - 00;32;56;05

Dr. Florman

Well, we're already seeing this. So since we did this, we now have, I think, 4 or 5 patients that want to have this, you know, the more success you have, the more people come. But I think this just shows just, to me, this is almost magical. This is just the the incredible part of medicine and about being a part of something like transplant and team work that you could even think to do something like this.

00;32;56;05 - 00;33;14;18

Dr. Florman

So I'm sure the next time is going to be somebody who needs four organs. You know, we have to do it based on what the patient needs, but, the better your experience, the better the teamwork, the better the institutional support, the more likely we are to see the indications get expanded even further.

00;33;14;21 - 00;33;37;09

Dr. Anyanwu

And it will also extends to solving other problems. So when when you have teams that can work so well together, you also find other applications like for example, doctor from I have a patient who needs a kidney transplant or a liver transplant but has a heart problem. And we'll say, well, maybe we can coordinate and fix the heart at the same time as fixing the liver or the kidney.

00;33;37;09 - 00;34;11;17

Dr. Anyanwu

And when you have teams that work together in that way, you'll you'll find you reach out. So many, so many more patients because there will be patients who will need specific treatments that cannot be delivered by a, you know, integrated team approach and things that might not have been thought of or done before. But once you can say, well, if we can put together a whole team of, you know, a few hundred people to pull a heart, kidney, liver transplant, then maybe we can take care of a patient who has a pancreas problem and a lung problem.

00;34;11;21 - 00;34;12;29

Dr. Anyanwu

There must be a solution.

00;34;12;29 - 00;34;36;02

Dr. Florman

That's exactly right. And also it drives innovation. It drives research. We now have a lab a perfusion lab where we're pumping multiple organs on perfusion pumps to see how that works. We've even talked about, putting these organs in together as one unit instead of separating them. It's been done in a small number of places. Maybe that's part of our future, but, absolutely.

00;34;36;02 - 00;34;42;11

Dr. Florman

Having this collaborate and the ability to do this drives other innovations and drives patient care.

00;34;42;13 - 00;35;01;24

Stephen

Now, for many of our millions of, listeners and, viewers out there, we imagine there are a great many folks who are either in medical school or aspiring to become, doctors themselves. What advice do you give to those folks who are just starting out and wanting to make a positive difference?

00;35;01;26 - 00;35;24;04

Dr. Florman

Well, first of all, if there are millions of people I gotta say. Hi, mom. Yeah, I'd be remiss. Look, I think Mount Sinai has an incredible place. Medicine is incredible place. The technology keeps keeps increasing. I have had no regrets. I work hard, we all work. Really hard. This is a labor of love. There are so many other things I could do that weren't this hard.

00;35;24;06 - 00;35;42;29

Dr. Florman

That would probably be more lucrative. Less days in the office, weekends, nights. But I love what I do. And I think if you love what you do, it almost doesn't matter what your job is, you're

going to be really good at it. So I would encourage people to pursue these types of careers. And I think nowhere better than to come to Mount Sinai and try to do it.

00;35;42;29 - 00;35;54;14

Dr. Florman

There's a lot going on. Maybe you won't do this for the rest of your life. Maybe you won't be involved in transplant, but just seeing it, just experiencing it and understanding what's possible. And I think it opens up incredible horizons for people.

00;35;54;16 - 00;36;22;08

Dr. Anyanwu

And just to mention technology, that's the doctor someone just brought of technology. The technology has is evolving rapidly. And when we started doing these, combined heart liver transplants about three years ago, the technology since then has allowed us to give patients like Mr. Godby a chance, because before we were limited a lot. Because when you take out an organ from the body, it can only survive a particular amount of time out of the organ.

00;36;22;09 - 00;36;43;00

Dr. Anyanwu

So for a heart, maybe after 4 or 5 hours, you start getting concerned. The liver may be, what, eight hours, 7 or 8 hours, and then you start running into problems. So it made it very difficult for us to do these multi organ transplants. But now we have machines that can keep these organs alive for 12 hours, 24 hours even longer.

00;36;43;00 - 00;36;43;23

Dr. Florman

Game changer.

00;36;43;27 - 00;37;07;26

Dr. Anyanwu

Which have really changed the way we can do these surgeries. So we can perform these multi organ transplants in a much more controlled way, not hurried. With we can also procure them from distant donors or we can go very far away, get the organs. You're not under the pressure of time. And it allows us to do these procedures much more safer than we could even just three years ago.

00;37;07;26 - 00;37;24;06

Dr. Florman

So it's not by accident that those devices became more available just 2 or 3 years ago when we started doing more, these two years ago, because the idea that we can keep the organs out of the body longer while we wait for one organ to be put in, is a game changer.

00;37;24;08 - 00;37;37;25

Stephen

Do you see a difference among patients in terms of their progress and their ultimate outcomes, when they have a significant amount of support, social support, familial support?

00;37;37;27 - 00;37;53;24

Dr. Florman

Well, it's part of the evaluation. I mean, you have to have the ability. You're not gonna be able to take care of yourself for a while. So, we decline people who don't have adequate support, but we also have a responsibility to try and help people who don't have actual support gained that support. So we have a lot of resources.

00;37;53;24 - 00;38;00;06

Dr. Florman

And, you know, we're here to help people. And, but it is an important facet of a transplant consideration. No question.

00;38;00;06 - 00;38;14;23

Stephen

Well, I mean, yeah, from the point of view of someone who might get rejected based on not having what is deemed to be adequate familial support, they don't want to feel like they're being penalized just because they don't have the support that someone else might.

00;38;14;29 - 00;38;42;00

Dr. Florman

We work very hard to help provide that. There is a limit, of course, but we work very, very hard. And we're we're agnostic. We're blind to financial ability and all this. I mean, every other day we're here to take care of patients, and we should use our resources to help people get over this hump. The goal of transplant is to be no matter what we're going to do is to have a better life and to live longer and to restore you to what's as close to normal as possible.

00;38;42;07 - 00;38;51;19

Dr. Florman

And Chris Klug won an Olympic downhill bronze medal. Snowboarding. Six months after a liver transplant. There's nothing you could think of doing that somebody hasn't done with a transplant.

00;38;51;21 - 00;39;09;06

Dr. Anyanwu

And I wouldn't use the term rejection. We don't really reject people on those basis. We might defer the, you know, the transplant. And we say, look, we have this barrier. How do we solve it. So it means that the patient doesn't have social support. The question is what can we do and how can we work with the patient.

00;39;09;07 - 00;39;21;15

Dr. Anyanwu

So we wouldn't like reject a patient on that basis. Well, we've try and find a way to to work around that. And sometimes we're successful and sometimes there are barriers that we really can't overcome.

00;39;21;17 - 00;39;42;01

Dr. Florman

It also depends on what the what the scenario is. I mean, for kidney transplant you can wait on dialysis. There's no emergency. Me dialysis isn't fun, but it does keep you alive. And it is a way to save it. That doesn't exist. So much for heart and liver transplant. There's a little bit of that. We have some devices that can help, but there's generally not a rush, so we.

00;39;42;01 - 00;40;00;21

Dr. Florman

I like the way you put that. I mean, it's not about rejection. There are some people who get rejected for good reason. I mean, if you're injecting intravenous drugs, you're almost certainly not going to be a candidate unless you can give that up, improve your sobriety. But we do try that at transplant. Not for everybody. I transplant is one stop on the continuum of patient care.

00;40;00;24 - 00;40;08;25

Stephen

Sure, sure. How would you say Mac's extraordinary story has changed? You?

00;40;08;28 - 00;40;37;09

Dr. Anyanwu

I mean, I wouldn't say it's changed me. Like, I see my role in this as a doctor, so I. I actually don't see, you know, my encounter with Max any different from, say, maybe a child with meningitis that I might have taken care of when I was working in emergency room in Africa, 30 years ago. I it's just someone who is sick and is in need of care, and we deliver that care.

00;40;37;10 - 00;40;48;17

Dr. Anyanwu

His happened to be very complex and complicated, but I just see the person I see doing my duty as a doctor, I don't I don't see it as anything different.

00;40;48;21 - 00;41;10;23

Dr. Florman

Yeah, I think I feel the same. Look, it's gratifying to see somebody do well, who's that sick? I mean, it's amazing and it's gratifying to know that we work with teams that are capable of coming together and providing this kind of care. You know, the truth is, I met Mac a week before his operation, right. And I see him a few times afterwards.

00;41;10;23 - 00;41;23;00

Dr. Florman

But it's gratifying to know that somebody can be that sick, go back to life, enjoy their family, and live the life that they may have been able to live without those diseases. I find it very gratifying. Sure.

00;41;23;02 - 00;41;56;06

Dr. Anyanwu

But I tell you what is I think is most gratifying, which Doctor Foreman said earlier is that a family in that time of grief have brought such you know, improvement to another human being because this would never have happened if a family in a very difficult time donated their organs. And I think that's where, you know, that's the most gratifying thing I've seen in my life, is that there's a family somewhere that, you know, they they had a great loss for something positive happened.

00;41;56;06 - 00;42;00;16

Dr. Anyanwu

This that's that's that's why, you know, a difficult time.

00;42;00;19 - 00;42;16;26

Stephen

Finally, for all of those millions of, viewers out there in radio land, a great many of them are likely medical professionals themselves. What do you think it's important for medical professionals and doctors specifically to take from this surgery?

00;42;16;29 - 00;42;41;15

Dr. Florman

Well, I think even within our own great institution, sometimes there's a failure of imagination. There's nothing wrong with asking. Could this patient have more than one organ? Are these things possible? Frequently, the answer is no. But, you know, sometimes the answer is yes. So I think that's part of it. I also think getting back to donation, you know, signing the back of your driver's license is nice.

00;42;41;15 - 00;43;00;14

Dr. Florman

That's not really something we enforce legally. We might be able to, but, you know, somebody would probably go on the corner and say they coerced me and call CNN. And the thing is, you have to talk to your loved ones, the people involved in your life who make the decisions. I have to do that. You have to do that and make sure they know that you know something untimely or untoward happens to me.

00;43;00;16 - 00;43;19;16

Dr. Florman

I want you to know that this is what I wanted. I wanted to try and help save somebody else. We

don't ask for bad things to happen to other people. We just try to make something good come out of it and you know, only a certain way. There are 3000 hospitals in the United States. There are only about 250 or so transplant programs.

00;43;19;18 - 00;43;29;01

Dr. Florman

Right. So the vast majority of hospitals don't do transplant. Yet. All of us can help save a life by donating organs.

00;43;29;03 - 00;43;55;21

Dr. Anyanwu

And I think the only other thing I'll add to that is for doctors use the use the people you know that's around you. There are so many of your colleagues and both, you know, physicians and non physicians with expertise around you. Use them and you can find that if you work together rather than against each other competing with each other, you can you can achieve a lot of great things because like we wouldn't be discussing this if like we don't work together.

00;43;55;21 - 00;44;20;02

Dr. Anyanwu

And also working together is just the tip of the iceberg. There's so many, you know, other doctors, nurses, technicians, everyone's putting together and build a good team like this. Things like this can't happen without a good team. You have to have a good team. Like for example. So we do the heart transplant doctor, flower man does the liver transplant, kidney transplant during that period of time he's operating I just go and have a rest.

00;44;20;02 - 00;44;35;14

Dr. Anyanwu

I don't even think about what's going on, because I know that the patient is being taken care of in whatever, in the way I would want the patient taken care go and vice versa. So you have to have it surround yourself with a team you can trust and build that.

00;44;35;17 - 00;44;55;04

Dr. Florman

When I also just point out you asked about Mr. Godby, everything we've done hasn't always resulted in such a success. So one of the things about his case is a reminder that we are successful, even in some of our failures. Not every patient has done perfectly. That's part of the as part of the risk. That's part of what we signed up for.

00;44;55;11 - 00;45;16;05

Dr. Florman

So there has to be real trust, not just between the two of us, but between the entire team and institutional support for this, that these things don't happen by chance or by accident. They have to be built over time, with institutional investment and with resources and with every facet of this

has to be in place, or you just shouldn't be doing it.

00;45;16;07 - 00;45;28;12

Stephen

Last question. This was a 20 hour surgery, and in something that long do you listen to music and is there a music that's best to listen to when you're conducting a transplant surgery?

00;45;28;17 - 00;45;29;13

Dr. Florman

Why are you.

00;45;29;13 - 00;45;47;17

Dr. Anyanwu

First? Well, I listen to what I let the team take what we listen to. And, you know, and I tell them, like, if you want me to, you know, finish up quickly, then you better not put music that's going to send me to sleep so they know what they put on. And we just keep suturing quickly. Well, yeah.

00;45;47;17 - 00;46;06;15

Dr. Florman

You know, I get asked that so frequently. I also let the team do it, but I have certain rules. No country or Western. I softened up a little on that, not too into punk, and I definitely don't like the N-word. And it has to be a little low in the background. I will tell you, that I actually, sewing in the liver should be very inspiring.

00;46;06;20 - 00;46;20;27

Dr. Florman

And somebody chose Country Road. Take me home during Mr. Gotti's transplant. I'm not going to ever forget that. And we had to quickly switch to, AC, DC. But, you know, the music should be secondary. And that's what I tell everybody. But yes, we listened to music.

00;46;20;29 - 00;46;42;23

Stephen

Doctor Sandy Foreman and Annie Onion. Well, thank you so much for your time and expertise. Thanks again to Doctor Zani Anyanwu and Sandy Foreman for their time and expertise. That's all for this episode of Road to Resilience. If you enjoyed it, please rate, review and subscribe to our podcast on your favorite podcast platform. Want to get in touch with the show or is it just an idea for a future episode?

00;46;42;26 - 00;46;58;02

Stephen

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