

Cardio-Oncology: Addressing Cardiotoxicity in Pediatric Cancer Survivors

Research shows that the most common cancer treatments can result in damage to the heart or vascular system. Children's Mercy is now one of only a few pediatric hospitals in the world offering a Cardio-Oncology Program to address cancer treatment-related cardiotoxicity. In one appointment, patients will receive evaluation and expert advice from an oncologist and a cardiologist.

The program provides early detection of patients at risk for cardiotoxicity, early application of cardioprotective agents and ongoing monitoring to minimize damage secondary to cancer treatment.

Aliessa Barnes, MD, Medical Director of Pediatric Cardiac Transplant and Joy Fulbright, Director of Survive and Thrive, discuss how they are helping make sure today's cancer survivors are not tomorrow's heart failure patients.



Featured Speaker:

Aliessa Barnes, MD and Joy Fulbright, MD

Aliessa Barnes, MD, is a pediatric cardiologists and Medical Director of Pediatric Heart Failure and Transplantation at Children's Mercy Kansas City and Associate Professor of Pediatrics at the University of Missouri-Kansas City.

[Learn more about Aliessa Barnes, MD](http://www.childrensmercy.org/FindADoctor/Details/13049)

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Joy Fulbright, MD, is a pediatric hematologist/oncologist at Children's Mercy where she serves as Medical Director of the division's Adolescent and Young Adult Program and Director of the Survive and Thrive Clinic. She is an Assistant Professor of Pediatrics at the University of Missouri-Kansas City.

[Learn more about Joy M. Fulbright, MD](http://www.childrensmercy.org/FindADoctor/Details/6909)

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Transcription:

Dr. Michael Smith (Host): So, our topic today is "Cardio-oncology: Addressing Cardiotoxicity in Pediatric Cancer Survivors". I have two guests today. I have Dr. Alisa Barnes. She's the Medical Director of Pediatric Heart Failure and Transplantation at Children's Mercy Kansas City and Associate Professor of Pediatrics at the University of Missouri Kansas City School of Medicine; and, along with Dr. Barnes, is Dr. Joy Fulbright. She is the Director of the Survive and Thrive Clinic. She is an Assistant Professor of Pediatrics also, just like Dr. Barnes, at the University of Missouri Kansas City School of Medicine. Dr. Barnes, Dr. Fulbright, welcome to the show.

Dr. Alisa Barnes (Guest): Thank you. Good morning.

Dr. Joy Fulbright (Guest): Thank you very much.

Dr. Mike: So, this is a very interesting topic, right? So, we you know, we know that many of the chemotherapeutic drugs have great efficacy but they also have a lot of the side effects that we have to protect against, so I find that this is a very interesting topic. And so, what I would like to do, Dr. Barnes, why don't you do this for us. Can you just give us some background information as to why Children's Mercy decided to put together a cardio-oncology program? What were the needs? What are the goals? What are you looking to accomplish with this new department?

Dr. Barnes: Sure, you bet. So, you know, what we're looking to accomplish is to basically improve the quality of care and the ease of care for our families who end up having needs in both of these areas. So, as you mentioned, the oncology world has really developed and improved to the point where cancer survivors have . . . We have to be able to follow things that can occur long-term in this group of patients. And so, what can happen long-term is that the medicines that were life-saving during the cancer admission actually are cardiotoxic and can lead to the heart muscle not working and the patient actually having pretty significant decrease in their heart function and heart failure. And so, the patient, after surviving through the whole pathway of cancer, now has to face the pathway of heart failure. So, this is something that is known and hospitals across the nation have patients that are following this pathway who have either, during their original treatment for cancer end up having negative effects on the heart and they need a heart doctor to help basically with coordinated care during that acute phase, or, the bigger population is, the patients who are being followed in long-term cancer survivor clinics and end up needing a heart doctor as well. Children's Mercy saw this group of patients and, typically, the way things work is that the patients will be seen in an oncology department and then, if they need to see a cardiologist, they will go to this separate cardiology department on usually different days, spread out through time, and rely on those physicians talking to each other behind the scenes and giving the plan to the patients on two separate days and kind of making it to where the family is having to put all the information together and interpret it and decide what the big picture plan is as these two large physician groups are trying to help their child. What we wanted at Children's Mercy is create a cohesive clinic where, basically, the patients would be able to come to one clinic and see both their oncologist and their cardiologist on the same day, have discussions in the room where we can create that cohesive plan with all of the players present and able to ask questions, and make sure that we are looking at all aspects of the child. So, we've got the patient themselves, the family members, the cardiologist, and the oncologist all in the room talking about how all these things interplay and what are we going to be looking for and what's our long-term therapy going to be. And, we believe that this will be serving this patient population by creating that multidisciplinary, coordinated care, and, hopefully, leading to decreased stress, better understanding, and, of course, the ultimate goal of just continuing to try to take the medical field and healthcare to a higher and higher level for the patient.

Dr. Mike: Right. So, coordinated care. I mean, that's really kind of where we all want to go with this, right? We want to make the patient experience less stressful, easier to deal with, especially when you have kids and families, right? So, it makes sense to me, right? This type of cardio-oncology clinic makes total sense. But, Dr. Fulbright, it's my understanding that not a lot of hospitals have a combined program like this, this coordinated care. Why do you think that's the case and do you have plans, does Children's Mercy have plans, of getting this message out that this is a great way to do it?

Dr. Fulbright: So, we work collaboratively with other organizations in the Kansas City area but we also work to present our information and how we developed our clinic and how we work to coordinate care here at Children's Mercy, because I think we do an excellent job of that, presenting that at national

conferences such as the American Society of Oncology and American Academy of Family Practice Conference on Survivorship Care; and then, also work with other organizations to present at international conferences. So, our goal with this clinic is once we have more data over the years to just show how well it can work and how it improves family and patient satisfaction, we want to get that information out there to other organizations, other hospitals, to show that this can really decrease family and patient stress.

Dr. Mike: Right. Let me ask you this, Dr. Fulbright. So, when you have a clinic that is coordinating the care, here you've got the cardiologist, you've got the oncologist, you've got whatever other modalities you need all in this one patient visit, I understand that that's improving the patient-doctor relationship, the families understand things better, there's less stress, but what about actual outcomes? Do you find that this type of approach leads to better compliance and actually has an impact on, you know, the future health of the child?

Dr. Fulbright: Yes. So, in our survivorship clinic, we have been able to, in the past, coordinate care with endocrinology and we have nutrition see our patients and we have social work see our patients already in our clinic, and we find that this improves family's compliance so that they don't have to come back multiple times, and so we find that patients miss less appointments and they're able to get all of that information. It also improves how providers communicate with each other because it's a lot easier when you're both seeing a patient at the same time on the same day to communicate with each other, what you've found on your exams and your concerns, so it does improve patient care and those outcomes. You know, we're just starting really to do more coordinated clinics in this area and so working on developing research to demonstrate that. Research is one of the newer areas we're looking at so that we can prove to people that it really does improve outcomes and care. Even though we know it does, we just need, over time, to gather that information—data--so we can prove that to other people.

Dr. Mike: Right. And, of course, I know that the data is going to show this. I agree with you, too. I know it's going to work. I know the data's going to be positive, because it just does. Some things just make sense, right? So, this is one of those things that just makes sense. Dr. Barnes, can you just run us through a typical patient visit?

Dr. Barnes: Sure. Absolutely. Basically, as Dr. Fulbright mentioned, most of the patients are going to be seen in the Survive and Thrive, and so the patients will be identified by the oncologist based on several different parameters that we have worked collaboratively together to create. These are parameters that are seen on the echocardiogram or the EKG that flag them as being a patient that has signs that a cardiac evaluation is needed. That will be communicated, all of this will be happening behind the scenes, and to where the families don't have to do any of this, they will then consult us and we will create a list of patients for each day that need to see the oncologist and the cardiologist. The physicians will then you know, pre-prepare about all of the tests that need to be done, so that the day the patient walks in, they come in, all of the testing both for oncology and cardiology are done as the patient is going through the workflow of the clinic. They'll be staying in the oncology area. So, one of the important changes that we made is that sometimes patients actually have to leave that area to go get their echocardiogram and instead, we're actually going to be bringing those tests and those machines to the patient and clinic. So, they will be in that room, they will get their test done, and then both the oncologist and the cardiologist will review the results outside of the room first, and determine a cohesive plan. We would then go in and see the patient together, discuss all of the findings, and our

plans as a group, and be sure, of course, that that sounds like that the family and the patient have no other information or input to adjust the plan, and then the patient will be done. So, kind of one-stop-shopping and whole bunch of information and care all in one place.

Dr. Mike: I've got to imagine, Dr. Fulbright, that the families, you know, the parents, must find this to be just an awesome way of dealing with very complicated medical issues. What's some of the feedback you get from the parents?

Dr. Fulbright: Yes. The parents really do like being able to get everything done at one time and they feel like their care is more seamless and it also helps them get back to being able to go to work and the kids to be able to stay in school and feel like their life is less disrupted. Most of these families have had to spend countless hours and days in the hospital and now that they're survivors and on the other end of the treatment, it's very nice to be able to get back to normal life as much as possible. Being able to have everything all together in one place and on one day really helps decrease some of their stress and anxiety that they have. They feel like they get all of their care at one place and communication is a lot better.

Dr. Mike: Yes. This is fantastic. Dr. Barnes, Dr. Fulbright, I want to thank you guys for the work that you're doing, the cardio-oncology program sounds like it's absolutely going to be a success and makes perfect sense. The coordinated care concept is definitely the way that we need to go. So, thank you for all of that and thank you guys for coming on this show today. You're listening to Transformational Pediatrics with Children's Mercy Kansas City. For more information, you can go to www.childrensmercy.org. That's www.childrensmercy.org. I'm Dr. Mike Smith. Thanks for listening.

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