

Survive and Thrive: Addressing the Late Effects of Pediatric Cancer

As pediatric cancer survival rates continue to improve, we are now faced with a new challenge -- transitioning care to adult providers and managing the long-term effects of cancer and cancer treatment, which often includes endocrine and cardiac related problems.

There are currently very few adult-based follow-up or survivor clinics.

Children's Mercy, in partnership with the Midwest Cancer Alliance and the University of Kansas Cancer Center, has developed a Transition Clinic to evaluate the needs of this patient population, track patients and adherence to follow-up guidelines, and improve long-term outcomes.

Joy Fulbright, MD is here to discuss the need for this type of program, and discuss the types of issues pediatric cancer survivors face as they transition to adult care and to talk about the work Children's Mercy is doing in the areas of cardiotoxicity research; endocrine disorders in cancer survivors, study participation and interventional studies.



Featured Speaker:

Joy Fulbright, MD

Dr. Fulbright is a board-certified pediatric hematologist/oncologist and is Director of both the Adolescent and Young Adult Program and the Survive and Thrive Program at Children's Mercy. She also is an assistant professor of pediatrics at the University of Missouri-Kansas City School of Medicine. Dr. Fulbright received her medical degree from the University of Missouri-Columbia School of Medicine. She completed a residency in internal medicine/pediatrics at Good Samaritan Hospital in Phoenix, Ariz. and a fellowship in pediatric hematology/oncology at M.D. Anderson Cancer Center – University of Texas. Dr. Fulbright has special interests in clinical treatment of adolescents and young adults with cancer and research on the late effects of cancer treatment.

[Learn more about Dr. Fulbright](http://www.childrensmercy.org/templated.aspx?id=2614&doc=13296)

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Transcription:

Dr. Michael Smith (Host): Welcome to *Transformational Pediatrics*. I'm Dr. Michael Smith and our topic is "Survive and Thrive: Addressing the Late Effects of Pediatric Cancer." My guest is Dr. Joy Fulbright. Dr. Fulbright is a board certified pediatric hematologist and oncologist and is director of both the Adolescent and Young Adult Program and their Survive and Thrive Program at Children's Mercy. She is also an Assistant Professor of Pediatrics and the University of Missouri, Kansas City School of Medicine. Dr. Fulbright, welcome to the show.

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

Dr. Smith: Tell us briefly about the transition clinic and the need for that type of program.

Dr. Fulbright: I work here at Children's Mercy with our Survive and Thrive program where we see patients that are two years off of therapy and five years from diagnosis. One of the great needs that we've seen is when we transition patients from pediatric care to adult care is having a place for them to go where their provider understands their late effects and the needs that they have. We work with the University of Kansas Cancer Center, the Midwest Cancer Alliance and K.U. Medical Center to develop the Survivorship Transition Clinic. This clinic has been instrumental in helping our patients and their families feel more comfortable with the transition process.

Dr. Smith: What types of issues do pediatric cancer survivors face as they transition to adult care?

Dr. Fulbright: Yes. Unfortunately, when we use chemotherapy and radiation therapy to treat our patients' cancers, it doesn't always just affect the tumor cells. It also can affect normal tissue. Some of these late effects show up right away during treatment or shortly after but some late effects do not show up until 10-20 years later, or even 30 years later. These patients need specific monitoring and during training, a lot of physicians weren't trained on how to monitor these patients. Partly because patients were not surviving as long as they are surviving today. More and more children are surviving childhood cancer, which is a good thing, but we need to know how to monitor these late effects which can include a variety of things including psychosocial issues, cardiac toxicity, effects on the endocrine system and effects on fertility.

Dr. Smith: What about specifically the cardiotoxicity research? What is Children's Mercy doing in that area?

Dr. Fulbright: Dr. Sanket Shah is one of the pediatric cardiologists and he, along with the survivorship clinic, has a protocol that we just finished gathering data on and did research on the best way to measure cardiac toxicity. We used cardiac MRI's and compared them to the 3-D and 2-D echoes to see if we can better monitor the effects of cardiotoxic medicine on the heart. We also looked at certain biomarkers that can be measured in the blood. So, we're working on publishing this data and to demonstrate what is the best way to (hopefully) monitor patients for issues with the heart from treatment. We're hoping to have follow up studies to follow these patients longer - 5, 10 years out -- from the initial trial to see what is the best predictive model.

Dr. Smith: Will some of this research, then, Dr. Fulbright, lead to maybe ways to prevent the cardiotoxicity before it even begins through a variety of different medications, etc.? Is that also part of that goal in preventing cardiotoxicity?

Dr. Fulbright: The research we've done specifically right now is looking at how to monitor it but through the children's oncology group that Children's Mercy is part of, we work with them on treatment protocols and over the years we've worked really hard to try to decrease the cardiotoxic effects of the chemotherapy in a variety of ways. One includes decreasing the dosage of certain medications, if possible, and the other is by limiting radiation to the heart and coming up with the protocols to do that. We're also using medicine more called Dextrothyroxine or Zinecard--a little bit easier to say--to help prevent that. We're hoping over time that we can use more targeted therapy that targets just the tumor so we don't have to target other organs in the body when we treat our patients.

Dr. Smith: What about endocrine disorders in cancersurvivors?

Dr. Fulbright: Just one of the major side effects a lot of patients – especially those with brain tumor--suffer from, because when we have to give radiation to the brain or do surgery to certain areas of the brain, we affect the pituitary gland which is basically the control center of the whole body and of the endocrine system. Unfortunately, a lot of our patients do develop what we call “endocrinopathies” such as low thyroid levels, problems with growth hormones. Because of this we work closely with two of our endocrinologists here at Children’s Mercy and they specifically see cancer survivors and once a month they do a combined clinic with our regular Survive and Thrive clinic and see patients. That saves a lot of families a trip. I know in our transition clinic, they’re work very closely with endocrinologists at K.U. to help monitor our patients.

Dr. Smith: Specifically, when you refer to some of the clinic trials you’ve mentioned, what is Children’s Mercy doing about study participation so that we can further study things like cardiotoxicity research?

Dr. Fulbright: Right. K.U. and Children’s Mercy have worked together to come up with a survivorship registry. So, we are registering all of our patients on that registry that are survivors of childhood cancer. The hope for that is that we can track our patients longer and then as we come up with new ideas or new things that we want to study, we can be able to contact them. We’re also working with a Children’s Oncology Group to enroll patients in survivorship studies that already exist through the Children’s Oncology Group. The Children’s Oncology Group is a group of over 200 hospitals in the United States and in other countries that work together to try to help prevent late effects but also help with survivorship and increasing the survivorship.

Dr. Smith: Dr. Fulbright, thank you so much for coming on the show. It’s been a pleasure speaking with you today. You’re listening to *Transformational Pediatrics* with Children’s Mercy, Kansas City. For more information you can go to ChildrensMercy.org. That’s ChildrensMercy.org. I’m Dr. Michael Smith. Have a great day.

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