

# Health Care Informatics

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What is informatics and why is it important in health care? Listen as Jill Westcott, MD, MS, FACOG, Physician Informaticist for the Fetal Health Center at Children's Mercy, shares her expertise on the topic and how informatics is improving patient outcomes in fetal health.



Featured Speaker:

**Jill Westcott, MD, MS, FACOG**

Jill Westcott, MD, MS, FACOG, serves as the Physician Informaticist for the Fetal Health Center at Children's Mercy Kansas City. Her special interests are in health care informatics, machine learning and critical care obstetrics, and she completed an MS in biomedical informatics while at New York University for her fellowship in maternal-fetal medicine.

Transcription:

Dr. Andrew Wilner: Welcome to Transformational Pediatrics with Children's Mercy Kansas City. I'm your host, Dr. Andrew Wilner. Today, we are discussing informatics and I invite you to listen as Dr. Jill Westcott, physician informaticist for the Fetal Health Center at Children's Mercy, shares her expertise on the topic and how informatics is improving patient outcomes in fetal health.

Welcome, Dr. Westcott.

Dr. Jill Westcott: Thank you.

Dr. Andrew Wilner: Dr. Westcott, could you describe your role as the physician informaticist for the Fetal Health Center at Children's Mercy?

Dr. Jill Westcott: Yes. So I'm a part of the overall medical informatics team at Children's Mercy. And my area of expertise is the Fetal Health Center since I am a maternal-fetal medicine specialist. And so I work within our department to help utilize informatics better, so in terms of making changes to the EMR, that benefit us as well as working on capturing data management so that we can better improve our patient outcomes based on past experiences.

Dr. Andrew Wilner: Maybe before we get too far into the details, it would be worthwhile to describe exactly what informatics is. I think when I went to medical school, it didn't really exist.

Dr. Jill Westcott: For sure. And there's definitely several areas of informatics. What most people think of is the electronic medical record, which has certainly grown exponentially in the last few years. And that's what we use a lot in our day to day, but there's a lot of work that goes on behind the scenes in terms of functionality and then also the big data side of informatics. Now that we have the electronic medical record, we have access to a ton of data that could be used for research studies, but we have to still figure out how to optimally capture and then use that data.

Dr. Andrew Wilner: So tell us, how did you get interested in this?

Dr. Jill Westcott: Actually, when I was a fourth year medical student, my hospital was doing a go-live on their inpatient EMR and offered to pay medical students to be superusers. So I had residency expenses coming up and decided to do that and then ended up falling in love with the field. I continued to serve as a superuser during my residency. And then when I went to fellowship, I was at New York University and they had a Master of Science Program in Biomedical Informatics. So I completed that program and then looked for a position where I could use those skills in addition to my clinical expertise.

Dr. Andrew Wilner: So let's talk about fetal health. How is informatics important in improving patient outcomes?

Dr. Jill Westcott: You know, when we're talking about pregnancy, we always are talking about two or more patients. There's the maternal fetal dyad or potentially more, if there's more than one fetus. And we have to be able to use that data to better improve our outcomes, but I think at Children's Mercy, we also have the unique situation where we can get a lot of information about what happens postnatally. And I think that's really an area for the future for us to explore is, you know, how our interventions or our treatment plans are affecting the neonate and the child as he or she progresses through their early years of life.

Dr. Andrew Wilner: Right. So it's not just what happens during the pregnancy, it's how that influences, you know, the future of this new human being.

Dr. Jill Westcott: Exactly. And capturing that data is really difficult because most often the institution where a patient will have her pregnancy taken care of and get delivered is not going to be connected to her pediatrician's office where you end up seeing how this kiddo develops down the line.

Dr. Andrew Wilner: Right. So that's a great segue into my next question, which is how do you share healthcare data among institutions and resources accurately and, at the same time, you know, securely protecting patient protected information, you know, and HIPPA? How do you conquer all that?

Dr. Jill Westcott: It is definitely a challenge. First of all, if you're doing any sort of a research study, you definitely have to go through your institutional review board at your facility. But what we are working towards in the informatics field is being better at sharing de-identified data. You know, we have all this information, but we're still not the best at harvesting it. And some of that comes from the fact that a lot of these electronic medical records were built more as billing software rather than for research purposes. So that's one of the things that I'm really hoping to get working on with the fetal health center, is how to better capture our data so that we can more effectively use it.

But it's definitely a challenge at this moment in time.

Dr. Andrew Wilner: Give us an example of what you're currently researching and how this is going to influence future pregnancies and fetal health.

Dr. Jill Westcott: Absolutely. So lot of what I work on actually involves maternal outcomes in terms of pregnancy. My largest research study has been an algorithm predicting patients at risk for postpartum hemorrhage following delivery. And so we are continuing to work on those sorts of outcomes. And then now, with the Fetal Health Center, we've been in existence for over a decade. So I'm really looking into

it what we have lots of cases of, and certain outcomes that we can look at, you know, be it length of hospitalization, how far we're able to get in the pregnancy and other, you know, longer-term outcomes like neurodevelopmental outcomes. So I think that's really our area of focus moving forward.

Dr. Andrew Wilner: And in the future, in the big picture, how do you see informatics is going to be utilized? Is it something that's going to grow? Is it going to change? Is it going to help the practicing physician?

Dr. Jill Westcott: Yes. I think it's absolutely going to grow. There's a lot of debates regarding the utility of informatics in the medical world. And I think as we become more used to life without the paper charts, it will become easier for us. But all of these programs are becoming more and more customizable so that you can make them work for you in the best way to help your clinical practice.

I know that I've made several changes to our PowerChart program on my end, just to be able to serve me better in my daily practice. And it does make me a faster charter in the end. But you do have to put in some of that effort. And I think, over time, people will hopefully see the benefit of that. And on the data management side, I think that research with big data will absolutely continue to increase as we get better at harvesting and cleaning that data. I think we'll be able to use it more often and really benefit our patients in the long run.

Dr. Andrew Wilner: Well, one last question. If a physician was interested in learning more about informatics and applying this new science to their practice, what would you recommend?

Dr. Jill Westcott: Most institutions have a clinical informatics team. And so that would be a good starting point. There are also organizations such as AMIA, the American Medical Informatics Association, which have great websites and also some supplementary courses that you can take if you're interested in the area and those courses can be applied to a future degree in the field, if you are interested in pursuing that path.

Dr. Andrew Wilner: Dr. Westcott, I want to thank you for a very interesting discussion on fetal health informatics at Children's Mercy.

Dr. Jill Westcott: Thank you. Pleasure to be here.

Dr. Andrew Wilner: This has been Transformational Pediatrics with Children's Mercy Kansas City. I'm Dr. Andrew Wilner. Please remember to subscribe, rate and review this podcast and all the other Children's Mercy podcasts. To refer your patient or for more information, please visit [childrensmercy.org](http://childrensmercy.org) to get connected with one of our providers. Thank you.