

*John Clymer:* Well, thank you, Larry and Hilary. And thank you to all of our speakers for those great discussions. Gosh, I learned a lot. And we already have some – a lot of activity in the Q&A box. If you have a question, and you haven't entered it yet, now is your opportunity. So please use the Q&A function on the Zoom screen to enter questions. The first one, I think I'll direct to Dr. Jones. And it is: "Which comes first," this is a chicken and egg question, "convincing the patient to take hypertension meds, or to measure their blood pressure using SMBP on a regular basis?"

*Warren Jones:* Well, you know, John, I think the first thing you got to do is build the relationship that helps the patient to understand that they do have a medical problem that requires addressing. I think in common with that is approach options that you offer, which would include their medication, and their participation in their care by self-measuring their blood pressure. I don't think that it's an ABCD process. I think it's a coordinated process. The whole focus of helping to improve outcomes is patient-oriented, patient-centered care, but patient self-determination.

When we when we identify that, and we get that addressed as my good friend, Dr. Keith Ferdinand has talked about on multiple occasions, and patients feel they've got skin in the game of helping themselves to feel better, then the tools that are out there will help them to achieve those much more readily.

*John Clymer:* All right, thank you. The next question is for Hilary Wall. The question says: "It's fantastic to hear that ONC is supporting the report out of average systolic and diastolic blood pressures. Is there also consideration to report out the highs and lows with frequencies, which is done with a 24-hour ambulatory BP report?"

*Hilary Wall:* Yeah, thanks, John. That is a great question, and a really important one. So in the USCDI that I mentioned, the US, I'm blanking on what I just said USCDI was, but the data elements that we need in electronic health records. In that we already have captured in the vital signs section, individual systolic and diastolic blood pressures. And so I think what the question is really about is more of like the electronic health record interface, like how are electronic health records set up to be able to capture 24-hour ambulatory blood pressure monitoring, SMBP, the highs and lows, etcetera.

So the technical side of it, those technical requirements, those are already there. But we may need better interfaces, so that different types of blood pressures can be used the way that clinicians would

like them to be used. So, you know, we also the blood pressure, telemonitoring software that I talked about, specifically for SMBP, many of those, not only do they capture that average blood pressure, but they captured the highs, the lows. They tell you how many values are incorporated in the average blood pressure. So we sort of need both we need those required data elements that we want to make sure all electronic health records are able to capture. And then we want to make sure that they're presented in such a way that the clinicians can use them for their maximum benefit.

*John Clymer:* All right. Thanks, Hillary. Dr. Ferdinand, did you have a comment on that, too?

*Dr. Ferdinand:* Yeah, I have some comments. And they're gonna be a little bit contrarian, but that's my nature, John. You know that. *[Laughter]*

*John Clymer:* We know that.

*Dr. Ferdinand:* I think we have to be careful of giving too much complicated information to the clinicians, the doctors, the nurse practitioners, and the PAs. Electronic health records, and I mentioned in my opening comments are really difficult to navigate, sometimes. When you're in clinic, you spend time treating the patient, then you spent almost an equal amount of time entering data, and writing scripts, and using templates to make a record, the electronic health record. Then you have to answer queries, that nurses and other doctors pop into your inbox.

Then you have to go into what different systems will use, they call them messages, some call them jellybeans, because they're little bubbles that pop up, where you have to look at labs, comment on labs, respond on labs. It is really, really rough. So even if the technology is there, we need to make sure that it's simple for the clinicians to receive the information and utilize the information. A bunch of junk popping into the electronic health record, it's not going to be well received by the clinicians.

Let's go to the other side. When you talk about advances in medicine, whether it be new therapies, new devices, electronic health record advances, etcetera; think about the person who is disadvantaged. Some people don't have access to high speed wireless, others have data plans where they just can do a little bit on it. And the real problem is that at one point, although disadvantaged people didn't have smartphones; smartphones, and now omnipresent, because there's a penalty that they pay for you

to get access to some of these plans. You have to buy the smartphone.

That does not mean that a 65, 66 year old Hispanic lady, who's living in a neighborhood, or Black woman in New Orleans, who catches the bus, to come to clinic knows how to use the phone, other than calling her grandchildren. So let's just really, really be careful. And, Hilary, you're brilliant, by the way. But let's be really careful when we develop systems that they are usable, that they don't overwhelm the clinician, but also the disadvantaged person – it has nothing to do with intelligence, by the way, we just talking about IT literacy, the disadvantaged person doesn't have something that really complicates his life or her life, and it becomes almost unusable.

The good thing about ours, we use an app. The stuff went to the app, medical students looked at it, then the medical students responded. Now, you're not gonna have medical students everywhere. But you could have community health workers. You could have ministry lay workers, you could have medical assistants, who don't have necessarily the advanced degree, who can respond to some of this stuff. If it's easy in electronic health record, *yaybo*. If it's more junk and electronic health records, the doctor is going to revoke.

*John Clymer:*

Those are really great points, Dr. Ferdinand. And I especially appreciate your first point, because I think, so often, we think about keeping things, using simple clear language, and keeping things clear for the patient. And we lose sight of keeping things simple enough for the clinician to be able to carry them out in a 24-hour day. So appreciate that. Dr. Jones, do you have an additional comment?

*Warren Jones:*

I just wanted to piggyback on something my good friend, Dr. Ferdinand, said. And I would view some of the challenges that you just described as opportunities for some families. Because what I found out is that, many times, the trusted advisor is not the person sitting across from me in the doctor/patient relationship. The trusted adviser is usually somebody at home. So if we can build a process that allows them to take information home, and have that trusted advisor participate, I think that can go a long way.

The way I see self-measuring blood pressure management is to have the family involved in making sure that the patient participates and does all the things they need to do. I can tell you that when I hear from family members, that Mom and Dad are

doing what they're supposed to do, or when my brother-in-law takes my father-in-law to his doctor's appointment, I think there's an opportunity to overcome that and build a family unit more – a better family unit of engagement, and projecting safe and healthy living after that. I didn't mean to stumble there. Okay?

*Hilary Wall:*

And I would, I would just jump in John really quickly, and say, of course, I agree with Keith. He's, you know, we love Keith. The technology issues, technology doesn't solve anything. And for people, it does cause problems. For me, it is one way to streamline some of these processes. I think it's one means to an end, not the only one. And so for, you know, some of the challenges we're also tackling is in really rural areas of the country.

And, you know, all the docs that that I'm on the panel with know all this, how do we get care out to them? And technology may be one of those ways that we can do it. And I understand there's broadband issues, and all of those things wrapped up in there. But I think we need to keep pursuing this as a way to help bring care to patients that need it the most.

*Dr. Ferdinand:*

So here's, here's what I really believe. I think what you're talking about is important and maybe a pathway going forward. It's going to be a solution to some of the problems. I think the most direct thing is to inform and empower the patient. If the patient checks the blood pressure at home, and he or she knows what the numbers are, then you won't have what we call "therapeutic inertia". It's a big term, when it goes to the doctor, and especially Black patients with providers who are not culturally-sensitive.

And the lady asked the Doc, "How's my blood pressure?" He'll say, "It's a little high." And you see that patient on consultation, and the blood pressure is 160. And you say, "Mrs. Brown, your blood pressure is terrible. What did your doctor say?" "Oh, he said it was a little high." So we got to challenge those providers to do the right thing. And if self-monitored blood pressure is a direct path to that, I think that's almost as important, I really think it's more important, than getting a bunch of numbers and dumping in the electronic health record. Because bias in the system, poor people, certain racial, ethnic minorities don't get the same level of treatment.

I have friends at all the major medical centers, if you go into Duke registry, you go to University of California registry, you still see White/Black mortality gaps. Even in Kaiser, they report these wonderful, wonderful numbers, there still is a White/Black

difference. And some of that is because people don't sit down, educate, and empower their patients. So, yes, let's do all this technical stuff. But let's start treating people right, and educating people about their numbers. When Larry Fine, other people from NHLBI who are running the guidelines, they did a better job than ACCHA. And I'm a member of both. Because built into the guidelines was a public health-facing approach, where they would have information in airports, and on the television, and public service announcements.

When the guidelines went to the academic medical organizations, we sit in big rooms at American Heart and ACC, and talk to ourselves. And that's why the guidelines, I think, are not picked up to the same level as they were when NHLBI running. And, Larry, I know you don't want to run guidelines anymore. But that public-facing component of it is really important.

*John Clymer:*

And Dr. Ferdinand, one of our participants, Margaret Davis, from a nurse in Mississippi, put what you just said very succinctly in one of the breakouts earlier this morning. She said: "It's really important to help patients know their numbers, and how to use the numbers." So, yeah, not just what is the number, as you pointed out, but what do you do about it? And then, as Dr. Watson pointed out several times, giving the patients control, so that they know that heart attacks, and strokes, hypertension, those aren't their destiny. Those are things that they can take into control and change. Doctor Fine, we had somebody asked, "What is the ideal difference between systolic and diastolic blood pressure?" Is there an ideal difference between systolic and diastolic?

*Larry Fine:*

I'm not sure there is an ideal, but, you know, obviously, the goal is blood pressure. Systolic at 120 are lower, and diastolic at 80 or lower. So at that point, you have 40 as a difference. As we get older, our arteries get stiffer, you do an increase in the difference. But, you know, the point I want to make about blood pressure, one of the points that Hilary made about the new way, they're I mean, they're working, they're working in terms of the IT guidance. I think, the clear, the important message for patients is that your average blood pressure that's really important, that drives your health risk.

It's not your blood pressure, if you run up the stairs, if you've had a bad day at work, you know, whatever. It's that average blood pressure. And that's the great thing about self-measurement of blood pressure. Because you get a lot of information, and there you can take the average. And the average is really important. And the

other thing I think is, we know that in many settings, clinical settings, unfortunately, they do not take blood pressure well.

And that means that some people actually are overtreated, because if you take if you do a poor job of collecting blood pressure, the patient's hanging their legs over the examining table. They're not resting. They pop up at the table and then you put the cuff on, and some places even put the cuff on over clothing, etcetera, you tend to get a higher blood pressure. So that home blood pressure, the self-blood pressure measurement, the average of it is really important.

*John Clymer:* Thank you, Dr. Fine. I would love to carry this discussion on. I mean, this is lively. We have more questions, and, unfortunately, we have more panels, more speakers. And we need to keep the program moving. But I do want to thank you very much, Hilary, Dr. Jones, Dr. Fine, Dr. Ferdinand. Dr. Watson, thank you so much for sharing all this information today, and especially your suggestions about actions that those of us in the audience can take in the settings where we work as soon as next week.

*Warren Jones:* Keep up the good work, John. We shall overcome.

*Dr. Ferdinand:* Yeah, thanks for the good work. And don't forget to include families in the effort now. Okay. *[Laughter]*

*Hilary Wall:* Thank you.

*Larry Fine:* Thank you.

*[End of audio]*