Speaker 1: 00:01

Quality Improvement in the Time of COVID-19 is brought to you by the American Heart Association with support from Novartis Pharmaceuticals. As physicians, scientists, and researchers worldwide struggle to understand the COVID-19 pandemic, the American Heart Association has developed its COVID-19 CVD registry, powered by Get With the Guidelines, to aggregate data and aid research on the disease, treatment protocols, and risk factors tied to adverse cardiovascular outcomes. For more information, visit us at heart.org/covidregistry.

Dr. Sandeep Das: 00:33

Hello and welcome to the American Heart Association podcast series on Quality Improvement in the Time of COVID-19. My name is Sandeep Das, and I'm a cardiologist at the University of Texas Southwestern Medical Center in Dallas. In addition to clinical work, I spend a lot of the time thinking about systems approaches to improve quality of care. Today, we're going to talk about another aspect of quality improvement in the time of COVID-19. The American Heart Association has built its extensive portfolio of quality-improvement programs on the premise that patient outcomes improve when medical professionals follow the most up-to-date, evidence-based treatment guidelines. One major challenge in the COVID era has been maintaining consistency in treating to our established standards of care in the context of the pandemic. At the same time, a second major challenge has been developing new standards for COVID-specific care quickly and effectively. Together in this series, we're examining some of these challenges more closely and hearing from experts in how quality-improvement programs and institutions are systematically adapting and responding to this crisis.

Today, I have the pleasure of hosting one of these experts, Dr. Clyde Yancy, professor and dean at Northwestern University and an internationally respected expert on both heart failure and on health disparities. Today, we'll talk about the current state of the COVID pandemic, but first I'll let Dr. Yancy tell you a little bit about himself.

Dr. Clyde Yancy: 01:50

Dr. Das, thank you very much. It really is my pleasure to visit with you and my colleagues representing the American Heart Association about such an incredibly important topic. You are correct. My role here at Northwestern University Feinberg School of Medicine is to serve as vice-dean of diversity and inclusion, chief of cardiology, professor of medicine, and a professor of medical social sciences. So it gives me an opportunity to use different kinds of lenses to interpret information from the diversity-and-inclusion perspective, from

the cardiovascular-medicine perspective, and from the socialscience perspective.

And it really has allowed me to think differently about some of the topical issues of the day. But nowhere is that more beneficial when we began to think about COVID-19 and how it's impacted our communities, because certainly there has been a portfolio of observations, and it requires all of these different perspectives as we go forward. So thank you for the opportunity to visit with you.

Dr. Sandeep Das: 02:48

Fantastic. So I don't know how things have been in Chicago, but this latest wave of hospitalizations that peaked in January had been absolutely brutal in Dallas. Now, cases and hospitalizations appear to be falling sharply, down two thirds or more from the peak. Can you get out your crystal ball for us and speculate as to what you think the course of infections, hospitalizations, and deaths might look like over the next few months?

Dr. Clyde Yancy: 03:10

We recognize that there were two bonafide surges. The one that we saw in spring 2020, which was so onerous because it caught us by surprise, we were ill prepared, didn't have enough PPE, didn't have enough understanding, which is probably the more worrisome issue about the natural history of the disease and how best to intervene. But you must acknowledge, we learned very quickly, and we understood things we needed to do in the critical-care mode. We started clinical trials right away, the collective we at the international level, and reconcile what did and didn't work. We saw an abatement of that first surge by early summer of 2020, even began to relax as a society, only to experience a really vicious, subsequent surge, particularly in the fall of 2020. And that really still has set a residual daily level that is actually higher than with the first surge.

And so even though the collective breath has been relieved, or released by society today, we should understand that our numbers are no less compelling. Over 525,000 deaths, as you and I are recording this Sunday, just let that sink in. 525,000 deaths. There are a lot of metrics that you can use to help understand that, but that's 10x, the losses in the Vietnam war. That's just amazing. And it's over 100x the losses from the Twin Towers. And you can create those models over and over just to begin to approximate the scale. But here's a scale that I want to share with everyone. Just yesterday, prior to this recording is I was seeing an entire panel of patients, a new patient came in, took the family history, and the minute the patient talked about

his sister who died of COVID-19, an adult man broke down in tears

That's the personal toll, so much loss. So as we think about what the next several months will be like, how can we attenuate that kind of personal loss? How can we anticipate whether or not we'll see another surge? On the one hand, the vaccines will attenuate this, but on the other hand, the variants may make us more vulnerable. My sense, though, is that as we, by the day, get closer and closer to broad-scale immunity, talking to someone who lives in Texas, I'm not sure I want to say herd immunity, but as we get closer to broad-scale immunity, the likelihood of having another surge as we've seen before is less but not zero.

Dr. Sandeep Das: 05:46

The magnitude of the death toll, it's mind boggling. I totally agree with that. And that the effects on people psychologically, even the prolonged quarantine, let alone just that everybody now knows somebody that's died from COVID, and it is devastating, I agree. You mentioned vaccines. So this is an audience that looks at systems approaches to care. So what are your thoughts on the systematic basis of how we rolled out the vaccine, how the phases have worked? What are we doing well, and what could we do better going forward?

Dr. Clyde Yancy: 06:17

So, Sandeep, you started your comments by acquainting the audience with your investment in process of care-improvement strategies. And I'm in that same space with you and was there at the beginning of Get With the Guidelines as a concept over a decade ago. Part of what we've recognized is that process of care-improvement strategies is an excellent way to take things proven to be beneficial and distribute them agnostically on a broad scale to the community at risk. So for example, think about the simple things that we articulate: wearing a mask, keeping a distance, washing hands. We all recognize that there basically is not a flu season this year. We have seen zero episodes of influenza-associated deaths. That's remarkable. Every other year, that was our crisis. And now because the process of care-improvement has led to more people practicing these preventive measures, we see less flu.

Now how does that relate to the vaccine? The vaccines are profoundly efficacious. We've seen the publications out of Israel where there's population-wide vaccination, and infection rates are down in the low single-digit rates. We've seen evidence in the UK, the transmission is being attenuated even with partial administration of vaccines. So now that we have not only the

science, but the observational data to say in practice this works, part of what we can think about with process of care is how do we make certain that we equitably distribute something that works as soon as possible to prevent the likelihood of the virus further mutating?

I think Tony Fauci said it very well. The virus must replicate in order to mutate. So if there's not a receptive host that would allow replication, the mutations will go away. So we have a number of inclinations, a number of drivers to encourage us to distribute the vaccine as well as we can. And what those of us in quality improvement can do better than those of us in clinical trials, you and I have a foot in both camps, we know how to create systems that improve process. And that's what we need now, process improvement with the distribution of the vaccines. It's been clunky as you intimate, but I think we can do a better job. And we are making it happen as time goes on.

Dr. Sandeep Das: 08:44

So you've touched on some really sort of important and sort of hot button topics there. So I want to unpack that answer just a little bit. We're seeing a significant number of people, certainly the minority, but still a non-trivial number, even among healthcare workers, elect not to take the vaccine yet. So is this reflective of a broader societal trend? And what can we do about that?

Dr. Clyde Yancy: 09:04

The answer is yes and yes. It's disheartening, because the third leg of what you just suggested, Sandeep, is that those in whom we're seeing hesitancy to accept the vaccine, come from the same communities where we see the vulnerability to COVID-19, specifically communities of color. Understand that percentagewise, we have a disproportionate representation of communities of color as healthcare workers. They were the essential workers who had to come to work in the beginning and have been exposed throughout this whole process. And they're reflecting deep cultural mistrust of physicians and medicine per se, because of a legacy of egregious events that have inclined an entire culture to think in a dismissive way about directives and instructions that come from medicine. We have our work to do. We have to let people know that there's an evidence base that supports this, this is truly for the good. And the only way that's going to work, that is to restore trust, is to be certain that the message is palpable and the messenger is trustworthy and believable. Pretty high bars.

Dr. Sandeep Das: 10:13 Absolutely. You mentioned vaccine hesitancy, and one of the things that I struggle with a little bit is, that often tends to get

put on the patient. It's somehow a fault of the patient if they're hesitant. But to a large extent, some of these issues reflect broader problems, and we can touch on topics like structural racism, that sort of create patterns that then persist and propagate going forward, resulting in disparate outcomes and worse outcomes among communities of color. I'm wondering if you could comment on some of these sort of structural factors that may be driving disparities in vaccine acceptance and vaccine uptake. And then what's the role of the health system in trying to ameliorate that?

Dr. Clyde Yancy: 11:01

So a lot to unpack, as you said. First, when we think about these structural barriers, the one that really comes to mind first is cost, right? But the vaccine is free. So the next one that comes to mind is access. That's where we begin to see some real questions, because many of the facilities that house the vaccinations are at a distance from communities that most need the vaccination. One of the consequences of the summer of 2020 is that in addition to communities that have food deserts, they now have pharmacy deserts, even with the overt effort to distribute vaccine to pharmacies, the communities at greatest risk no longer have pharmacies. So that is a structural barrier.

But what I most want to endorse about your comments, Sandeep, is that it is the inclination of medicine, of physicians, people like you and me, to put the onus on the patient. Why are you not accepting this? When that dial needs to be turned and the question should be, why have you not respected me? Why have you in the past not told me the truth? Why have you not incorporated my opinion in your decision-making process? This trust-equation is about mutuality. And if that's not a part of the equation, we can't put all the onus and responsibility on the person that we haven't invited into the discussion. We have to own some of that ourselves.

Dr. Sandeep Das: 12:28

Yeah, absolutely. And I'll add on a couple of points for the audience that I know that you know well. Some other ways that some of these structural effects get instantiated into bad outcomes is to do things like the types of people working certain types of jobs, the types of housing situations. So people who are your frontline fast-food workers or your cleaning crews [inaudible 00:12:48] are going to be disproportionately people from minority communities and at higher risk for multiple reasons. So there's structural factors, I think, that are at play here, and that should factor into our response.

Dr. Clyde Yancy: 13:00 Yeah. Let me follow up on that.

Dr. Sandeep Das: <u>13:01</u> Please.

Dr. Clyde Yancy: 13:02 Think about something as simple as language. How many times

have you heard bilingual, a multi-lingual messaging about COVID-19? It's not the norm. And think about the people that we're missing by not respecting the fact that this language discordance is a concern. But the other thing I will tell you is that you learn a lot from stories, Sandeep, a lot. And we recognized that we had about 30% of our healthcare workers refusing to accept the vaccine, people who see the burden of this disease, and almost without fail, they were healthcare workers of color. So I went on a tour of the hospital, down to the loading dock, to central supply, to the groups of administrative assistants, and sat amongst them at a distance, explained how the vaccines work, and then listened to their response and fielded their questions. And the questions were

sobering, but they were necessary.

How do I know that vaccine works in me? Were there people like me in those trials? Is this still an experiment when you give me the vaccine? How do I know that there's nothing that will happen to me down the road? How can I trust that this vaccine is safe? I heard the trust word come up over and over again. And you know that trust is the hardest thing to establish and the easiest thing to destroy. And it only takes a few missteps to have someone take a step back. And so that's really what we're trying to overcome.

Dr. Sandeep Das: Yeah. That's powerful. Everything you just said, the thing that

shines through is the idea that we really need to listen. There's sort of a reflex that when people, even it relates back to medication adherence, and we think that if the patient chooses not to do something, it's because they're obstinately refusing to exceed to our well-intentioned guidance. But really, people all want to feel better. They all want to do well. They all want to live longer. They all want to play with their grandkids. And it's just a matter of having that communication and actually hearing

where this comes from.

Dr. Clyde Yancy: <u>15:05</u> I agree.

Dr. Sandeep Das: So I think we're running relatively late on time, but I still wanted

to get at one other thing. So President Biden just announced a fairly ambitious goal to have vaccines available to all U.S. adults by May. And as you mentioned before, we live in a world of systems-based solutions to complex problems, and we're keenly aware of the distinction between having something available

and having it effectively used. So what do you see as the roadblocks to actually getting shots in arms?

Dr. Clyde Yancy: <u>15:36</u> This is where I'm

This is where I'm incredibly optimistic, and this is where we can pivot our entire conversation to start thinking about hope. As the vaccines rolled out late December, early January, we had such a paltry uptake in the thousands per day, and in just three months time, we're up to over two million vaccines per day. So no matter how clunky or clumsy or uncertain it was, we have been able to be strident in our commitment to get people vaccinated. Two million a day is quite substantial, and the intent is to go further. Think about the real-time lessons learned doing this. Now we have drive-through sites. Now we have large venues, stadiums that have been repurposed to accommodate vaccinations.

The neat thing, and you and I both know this from process improvement, is that real-time change is already happening. Even without someone standing in the middle and saying "Let's do this as a project," we are all iterating and understand how we can do a better job of getting the vaccinations distributed. The one thing I worry about a little bit is that we are still disproportionately vaccinating those with resources versus those without, and I hope that over time we'll change that too. But it really is a wonderful thing for me to see that we're up over two million a day. It's very clear that if we can keep this pace going, the threshold we need to get to achieve protection of the community really is attainable by early summer. That's good news as far as I'm concerned.

Dr. Sandeep Das: 17:08

All right. I like the optimism. The two-shot nature the Moderna and Pfizer vaccines carry with them, logistical hurdles to getting people fully vaccinated. What niche do you think the new Johnson & Johnson one-shot vaccine might fill, especially as it may relate to those who have more challenges navigating our healthcare system?

Dr. Clyde Yancy: <u>17:27</u>

It's exactly what you said on the backend. Those persons who live at a distance, those persons where exposure is a little bit less of a concern, the one shot approach might be their solution. Those persons living in rural communities, the one-shot approach might be their solution. I think for people that are living in population-dense areas, the two-shot solution to get maximal protection, if we can do this, comparatively speaking, is still the right way to go. But it is striking when you think about something that intuitively sounds simple: You get the shot and you come back in 30 days and get the second shot.

It's a logistical nightmare to plan this, to keep the records, to have the prompts, to know exactly where there's enough stock, enough vaccine in storage to make that second shot happen. That's a logistical nightmare, but I think Johnson & Johnson's vaccine, and I hate to use proprietary names, but that's the way to refer to this, gives us that option, particularly for those persons where getting to the second shot would be a true hurdle. So I'm glad that we've got some flexibility there.

Dr. Sandeep Das: 18:32

Well, thanks. This has been a fascinating discussion. I want to give you the opportunity to give us some parting thoughts for the listeners. So what are your sort of key take homes about the current place we are in the battle against the virus, and what should the audience take home from this discussion today?

Dr. Clyde Yancy: 18:49

So before I do that, I really want to pose a question for you. Because one of the things that we haven't talked about that I think is so key, Sandeep, is what do we know about treating the COVID-19 condition? We understand the vaccines and preventing it, but what do we know about treating the condition? Because there's still those people that worry me that are coming to the hospital with acute illnesses. Fewer, now. I get a daily census from our hospital, fewer for certain, but they're still at risk. What are you doing in Texas when people are presenting to the hospital with this condition? I think the community needs to know that we do have treatment paradigms that work. What are your thoughts?

Dr. Sandeep Das: 19:28

Yeah, so we have learned a lot in terms of how to deal with the virus. In some ways, this is similar to other viral pneumonias, but the intensity is significantly higher. Initially, we did a lot of scattered responses due to the terror of the horrible outcomes that we were seeing. But over the course of the past year, we've had some trials' result. We have some good data now. I think that the biggest mainstay of treatment really remains some of the respiratory-care interventions: proning, ventilation strategies, use of noninvasive ventilation.

Dr. Clyde Yancy:

20:04

Correct.

Dr. Sandeep Das: 20:05

And then steroids, of course, are probably the elephant in the room in terms of the actual treatment paradigm. And then there's quite a bit of work going on with things like IOS 6 antagonists, things like that. But our mortality from the virus was catastrophically high early on in the pandemic. We were overwhelmed and didn't know what to do. And now we're not overwhelmed. We've built up our ability to handle things.

Initially, we were avoiding exposing our own workers, so it limited what we could do in terms of taking people to the cath lab or getting them procedures. But now we're able to do that just fine. So what I would say, COVID or any other illness, come in, the door is open. We have some strategies. We have some things that work. This is not something to suffer in silence at home.

Dr. Clyde Yancy: 20:48

So, Sandeep, that's exactly why I raised the question because I wanted to respond to the question you raised to me. That is to say I wanted another voice chime in this pivot towards more optimism. I completely endorse what you said. We can treat this condition. At the bedside we know what to do. The pharmacotherapeutics that we have in our armamentarium now have been proven to be beneficial, not as many as we'd like, but the point is that we're no longer in a dreadful, hopeless situation. We're in a hopeful situation. Think about what this means.

I want everyone listening to this podcast to walk away with one incredible statement. We all responded to the call. We all stepped up. We changed our lifestyles. Scientists did the research. Clinicians did the bedside care. Public health experts led. Industry created. We all responded to the call. If nothing else, think about that. We all responded to the call, and collectively, over a very short period of time, we have executed something that we thought was absolutely not possible. But indeed we did. So I would say there's hope. Not just hope, there's optimism. Life can be different. I won't say normal. I don't know what normal means anymore, but life can and will be different in just a few months. That's really good news, because we responded to the call.

Dr. Sandeep Das: 22:12

Cannot leave it any better than that. I am going to give Dr. Yancy the final word. Thanks so much for a great discussion. I really enjoyed it.

Dr. Clyde Yancy: 22:20

Me as well. Me as well. Take good care now.

Speaker 1: <u>22:24</u>

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