

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.

Gerald Johnson: [00:31](#) Good afternoon. My name is Gerald Johnson, the executive vice president in the Office of Health Equity and the chief diversity officer for the American Heart Association. Today I'm here with you to talk about late-breaking research from the COVID-19 CVD Registry.

I'm joined by Dr. Fatima Rodriguez, who I'll ask to say hello in a moment. Today we're here to talk about the racial and ethnic differences in treatment and outcomes for patients hospitalized with COVID-19 registry and findings from the American Heart Association COVID-19 Cardiovascular Disease Registry.

Hello, Dr. Rodriguez. Why don't you introduce yourself?

Dr. Fatima Rodr...: [01:10](#) Thank you so much, Gerald. My name is Fatima Rodriguez, and I'm a preventive cardiologist at Stanford University. I also spend a lot of my time thinking about issues around racial and ethnic disparities in cardiovascular disease and interventions to mitigate these disparities.

I'm joining you today because of my role authoring this manuscript from the American Heart Association's inaugural COVID-19 Cardiovascular Disease Registry about growing pandemic.

Gerald Johnson: [01:37](#) Well, terrific. Again, thank you, and it's always great to be able to work with you. Overall, can you tell me what the aim of the study was, and what did you learn?

Dr. Fatima Rodr...: [01:45](#) The COVID-19 pandemic, as we all know, has magnified existing racial and ethnic disparities in the United States. The goal of this study that was really one of the landmark papers from the study was to leverage this new data source to understand racial and ethnic differences in how patients present and how they fare once they're hospitalized for COVID-19.

Gerald Johnson: [02:06](#) Yeah, and that is terrific. You note in your findings that interventions to address the disparity in the number of blacks and Hispanics with COVID-19 should start before the hospital. How can providers help to address this disparity?

Dr. Fatima Rodr...: [02:21](#) Thank you so much for this question, Gerald. I think this is an important takeaway from our study. Although it is not what we studied, we really focused specifically on hospitalized patients.

One of the key findings from this study is that the majority of patients that were hospitalized and who die from COVID-19 were black and Hispanic individuals. So what this really means is that we want to intervene before patients get sick enough to require hospitalizations and require intensive care level of care.

To do this, the interventions are clear to focus on prevention by teaching our communities the importance of continued social distancing, masking, hand washing, and now more than ever the importance of getting the vaccine when it's your turn. We know that in our communities, there's a lot of mistrust around vaccines, and we need to make sure that community leaders educate others on the remarkable safety and efficacy of available vaccines. Of course, although numbers, knock on wood, appear to be coming down from COVID-19 infections, it's too soon to let our guard down.

Gerald Johnson: [03:18](#) Terrific. I want to keep these thoughts going. I mean AHA's presidential advisory, our call to action structural racism as a fundamental driver of health disparities, learn from this research and to end structural racism?

Dr. Fatima Rodr...: [03:33](#) I think that's really the key source of the inequities that we're seeing around COVID-19 disproportionate representation of racial and ethnic minority groups. It is clear that this is a result of longstanding structural racism. It's not new today, but it's just been brought to the forefront by the pandemic.

Structural racism results in conditions, which increase the risk of transmission of COVID-19, and we know that the communities that are most at risk are those who are overrepresented in the essential workforce, are communities that live in multi-generational households and have limited access to regular and frequent testing. Then when they do get sick, that they're able to get adequate and prompt medical care. So the American Heart Association, as a leader in science and advocacy, can really work within communities to try to make sure that we

work to educate and provide the resources available to prevent hospitalizations.

Gerald Johnson: [04:26](#) Yeah. Can you talk a little bit about how uninsured rates in these populations came into play in terms of patient outcomes?

Dr. Fatima Rodr...: [04:35](#) That's a great question, and we know that lack of insurance and lack of access to care is one of the key social determinants of health. I should caution that this is a biased study sample in the sense that the registry represents hospitals that are part of this large Get With The Guidelines effort through the American Heart Association, so these tend to be larger academic hospitals.

However, we did notice differences in rates of uninsurance by race. All racial and ethnic groups were more likely to be uninsured as compared to non-Hispanic white patients who were hospitalized for COVID-19. The difference was really most striking among Hispanic patients with almost 13% of Hispanic patients being uninsured at the time of hospitalization. Rates of uninsurance were not independently predictive of poor outcomes, but clearly they are a source of the over-representation of these patients in the hospital.

Gerald Johnson: [05:23](#) Yeah. Dr. Rodriguez, I appreciate that perspective. I want to keep on that thread. Can you talk a little bit about what trends you may have seen in the differences and severity of the virus among the different racial groups?

Dr. Fatima Rodr...: [05:35](#) Absolutely. I should start again by saying that black and Hispanic patients were much younger at the time of hospitalization than their white counterparts. This is really notable because of the burden it places on their families when a young person is hospitalized and sick.

Mortality rates were also high, not different by race and ethnicity, but high overall. For this study, we developed a COVID severity index for hospitalizations with the worst case scenario being in-hospital death, the best case scenario being hospitalized without need for mechanical support or a vasopressor support. We interestingly found that Asian patients had the highest disease severity, as compared to other racial and ethnic groups at the time of hospitalization.

Gerald Johnson: [06:16](#) Dr. Rodriguez, I'm intrigued to know with all the great work that you've done here, what would you say are the key findings or headlines that you'd like our audience to be aware of?

- Dr. Fatima Rodr...: [06:25](#) I would say that the key headline is the black and Hispanic patients accounted for over half of the COVID-19 hospitalizations and deaths. Again, this is not surprising and consistent with other work.
- We also found that black and Hispanic patients were much younger than white patients when they were hospitalized, and as you asked before, they face more adverse socioeconomic circumstances. Black patients had a higher greater burden of co-morbidities, including obesity, with marked rates of hypertension, diabetes, and also kidney disease, and we know that's associated with more severe disease. Overall, mortality rates were very high in our registry, about 18% during the study period, but cardiovascular complications occurred less frequently than initially feared.
- Gerald Johnson: [07:09](#) Dr. Rodriguez, this registry has tons of rich data included in it. What do you see next on the horizon to complement this great work?
- Dr. Fatima Rodr...: [07:19](#) Our goal in building this registry quickly during the time of the pandemic was to democratize the way we do science. We know that we need speed, but maintaining scientific rigor, and there are, of course, many more questions that come out of this work. For example, we have ongoing projects looking at differences in temporal rates of outcomes for patients. We know that has changed. We want to link some of this data with other community-level data to really understand the source of these disparities among racial and ethnic minority patients.
- I want to tell everybody out there that the call for proposals is open, and our commitment to our research community is that we will promptly review manuscripts and really work with you to try to get the best science out in a timely fashion.
- Gerald Johnson: [08:04](#) Yeah. I mean, you're continuing to give us a lot of knowledge here, and I appreciate that.
- I want to ask you one final question. What differences did you see in the way that either treatments or medications were provided that you think may be helpful for our audience?
- Dr. Fatima Rodr...: [08:20](#) It's important to note that COVID-related therapies are changing dramatically all the time and particularly during the study period, which started in the early phase of the pandemic in March. The most frequently used therapy for COVID-19 during the study period was hydroxychloroquine that we now,

of course, know is not helpful and may actually be harmful in management of COVID-19. Only 9% of patients were enrolled in COVID-19-related trials so we know that's an important way to get our evidence base and this was lowest among black patients.

In contrast, we found that remdesivir was used treat 8% of patients during the study period with the lowest rate of remdesivir use among black patients. Reasons for this difference in the use of remdesivir are not known and, again, could it be a difference in underlying comorbidities, but that may suggest a gap in care for these few available evidence-based therapies.

Gerald Johnson: [09:13](#)

Yeah. Dr. Rodriguez, I appreciate you helping clarify this and thank you again for your work on this study. As we close, again, thank you. The American Heart Association is grateful for your continued work on this, and I thank you for your time. I'd like to thank our audience for joining us today in this very important discussion. Thank you all.

Speaker 1: [09:33](#)

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