Cardiovascular Disease and COVID-19: What You Need to Know

Attribute to: Northwestern Medicine Bluhm Cardiovascular Institute’s Clyde Yancy, MD, MSc, chief of cardiology, the Magerstadt Professor and vice dean for Diversity and Inclusion at Northwestern University Feinberg School of Medicine, and Robert Bonow, MD, MS, cardiologist and the Max and Lilly Goldberg Distinguished Professor of Cardiology at Northwestern University Feinberg School of Medicine

Cardiovascular disease is one of the most common diseases in the United States. The American Heart Association is reporting that as many as 40 percent of patients hospitalized for COVID-19 have underlying cardiovascular issues.

What is the connection between heart disease and COVID-19?

RB: It is true that people who have heart disease have a higher risk – not necessarily of getting the disease but the outcomes are more severe if they do contract it. Data from China and Italy show that the outcomes for people who are older are worse, and the mortality rate is much higher over the age of 60 and 80 years old, incrementally.

People who have chronic diseases, in particular high blood pressure, coronary disease and heart failure, are at particularly high risk, either because their underlying situation has the potential to become unstable when there is an increased stress on the heart caused by the infection, or there can be an intense infection and inflammation. Older people with underlying heart disease tend to have more severe pneumonia infections resulting in a greater need for admission to ICUs and ventilators. The response can also be a direct complication to the heart, such as myocarditis, which is an acute inflammation of the heart muscle.

CY: Let me endorse everything Dr. Bonow said without question. The action item for the patient and the person who has known cardiovascular disease or for family members is a strong alignment with social isolation. We know that underlying cardiovascular disease will increase the risk of complications if you contract COVID-19. Given our limited treatment options, we strongly align with our Public Health officials and support aggressive social distancing but in our
patients with known cardiovascular disease, we urge them and their families to take the next step - social isolation.

We know this is going to be difficult and the isolation may need to last longer than two weeks but things will resolve and when they do, we want all of our patients to have their usual state of health. Again, if you have known cardiovascular disease, think social isolation.

**I am on daily medication to manage my heart disease. Do I keep taking that?**

**CY:** Yes, absolutely. Dr. Bonow and I both stand firm that patients need to continue with all therapies known to benefit heart disease and that particularly includes ACE Inhibitors and angiotensin II type-1 receptor blockers (ARBs), both medications which treat hypertension and heart failure. Social media has erupted with statements about the risks or benefits of taking or discontinuing those medications. It is confusing. Dr. Bonow and I are fully aware of the known science that addresses the intersection of COVID-19 and these drugs but we cannot emphasize strongly enough that there is absolutely no proven evidence to prompt either stopping those medications to decrease your risk of COVID-19 or initiating those medications to protect you from COVID-19; no evidence. If you have a question about your medication please call your doctor or submit a question through MyChart. Do not stop taking it on your own.

**RB:** These medications are really important for maintaining the health of patients with high blood pressure and coronary disease. We have heard stories of people who stopped taking them without their doctor’s advice. We are firmly behind the American Heart Association, American College of Cardiology and Heart Failure Society of America statements that recently came out that individuals not stop their medication. That could create more problems and contribute to the situation becoming unstable.

**If I think I am having a heart attack, or complications from heart failure, should I still go to the emergency department right away?**

**RB:** We don’t want to turn people away who need urgent care independent of COVID-19. For patients suffering from a heart attack, or heart failure becoming unstable, many times that means going into the emergency department.

**CY:** We do not want people who are developing illness to refrain from seeking care out of risk of infection with COVID-19. Certainly, anything manageable over the phone should be, but many emergency facilities are setting up alternate pathways so those who may have COVID-19 go in a separate entrance.

To protect the health and safety of our physicians, nurses, staff and patients, temporary ‘tent-like’ structures have been constructed at many Northwestern Medicine hospitals. The structures, next to a hospital emergency department, provide the necessary temporary space to expeditiously and safely screen patients prior to entering the Emergency Department. A second structure on the hospital campus provides the capability for remote COVID-19 testing.
These sites are intended for patients appropriately assessed and referred by an NM physician. These sites are NOT intended for walk-ups or non-referred patients.

Many of those with cardiovascular disease are senior citizens. It is hard not to visit older loved ones at a time like this. What is your advice?

CY: I know we all love our elderly and want to support them and be with them, and there are real concerns about the onset of depression and social isolation. However, if we or another visitor, especially a young adult or child is a carrier of COVID-19, the consequences could be devastating. I have really been wringing my hands in concern about the outbreak here in Illinois at a single senior living facility that has affected so many residents. That outbreak likely started with just one carrier who came in close contact with a single resident. Now is the time for aggressive social distancing, especially young adults or children who might not have symptoms.

RB: Put an underline on that.

Bluhm Cardiovascular Institute physicians and staff are now using telemedicine in some cases to “meet” with their patients. How is that going?

CY: I have been involved deeply in how our team of doctors is responding, and I have been impressed with not only the resolution of our staff during this time but also how quickly we have adapted virtual platforms like telehealth. We are continuing to provide quality care but at a safe distance. Some telemedicine approaches will work, some will not work. We are asking our patients “How does this tele-visit qualify?” Was it as good as an in-person visit, not as good or better?

There is a lot to learn here. We did not want to learn under duress but we are finding out how our patients are responding to this new dynamic.

Let me also add, our patients are incredible; so accommodating and so grateful even for just the phone call. It is an honor to provide care to them.

RB: One of our concerns, whether you work in a hospital or outpatient facility, is that many patients come and go. We do not want exposure to our patients. If a routine is addressable with a phone call instead of requiring a face-to-face office visit that helps everybody.

CY & RB: Working together, we can flatten the curve and lessen the burden of COVID-19.

For more information about the Northwestern Medicine Bluhm Cardiovascular Institute, visit heart.nm.org.

The American Heart Association is updating its COVID-19 page as new information is available. Visit here: https://www.heart.org/en