

Good afternoon. I'm Commander Ibad Khan and I'm representing the Clinician Outreach and Communication Activity, COCA with the Emergency Risk Communication Branch at the Centers for Disease Control and Prevention. I'd like to welcome you to today's COCA Call, Underlying Medical Conditions and People at Higher Risk for Coronavirus Disease 2019. Today's webinar is accessible only by the Zoom platform, it will not be streamed on Facebook Live. We are hopeful that we will be providing simultaneously -- simultaneous Facebook live streaming in the very near future.

All participants joining us today are in listen only mode. For participants using the Zoom platform to access today's webinar, if you are unable to gain or maintain access or if you experience technical difficulties, please note that the recording of this webinar will be available soon after the webinar ends on COCA's webpage at emergency.cdc.gov/coca. Again, the web address is emergency.cdc.gov/coca. Continuing education is not provided for this COCA Call. After the presentations, there will be a Q&A session. You may submit questions at any time during the presentations through Zoom by clicking the Q&A button at the bottom of your screen and then typing your question.

If you are unable to ask the presenters your question, please visit CDC's COVID-19 website at www.cdc.gov/covid-19 for more information. You may also email your question to COCA@cdc.gov.

For those who have media questions, please contact CDC Media Relations at 404-639-3286 or send an email to media@cdc.gov. CDC's COVID-19 clinical call center is available 24 hours a day at 770-488-7100. Again, that number is 770-488-7100. We would like to take this opportunity to make a request of clinicians and that is, we ask that all clinicians to please remember to refer patients to their local or state health department to obtain COVID-19 testing and our test results, unless you have specific directions to provide patients otherwise. Clinicians should not refer patients to CDC to find out where or how to get tested for COVID-19 or to get COVID-19 test results. Thank you for your cooperation to this request. Also, please continue to visit emergency.cdc.gov/coca over the next several days, as we intend to host COCA Calls to keep you informed of the latest guidance and updates on COVID-19. In addition to our webpage, COCA Call announcements for upcoming COCA Calls will also be sent via email, so please subscribe to receive these notifications by going to emergency.cdc.gov/coca/subscribe.asp. Again, that's emergency.cdc.gov/coca/subscribe.asp. That web address is also available on our page. Please share the Call announcements with your clinical colleagues.

The next COCA Call is planned for Thursday, April 2nd, at 2 p. m. Eastern, where the topic will be clinical management of critically ill adults with COVID-19. You will hear firsthand from clinicians who have treated COVID-19 patients. Additional information will be shared shortly via emailed call announcements and should be posted shortly on the COCA Call webpage at emergency.cdc.gov/coca. I would now like to welcome our three presenters to today's COCA Call. Our first presenter is Dr. John Brooks, the chief medical officer for the CDC's COVID-19 Emergency Response.

Our second presenter is Dr. Georgina Peacock, CDC's COVID-19 Response At-Risk Taskforce Lead. And today's third and final presenter will be Captain Sapna Bamrah Morris, a medical epidemiologist from the COVID-19 Response Clinical Team at CDC. And now our first presenter, Dr. Brooks.

Please proceed.

Well, good afternoon, those of you on the East Coast, and those of you who are in the middle of the country, or to the west, good morning as well. We're very pleased that we have the opportunity to speak to you today about this topic of underlying medical conditions and what that may mean for persons at risk for or exposed to or infected with COVID-19. I just want you to know that you really have a group of people here who, in our normal daytime jobs, this is the focus of what we do. Dr. Peacock is the Division Director of the group at CDC that oversees developmental delays.

Dr. Morris is the chief medical officer for the TB division. And I'm the chief medical officer for the HIV division, and each of us has a real commitment to this population. I wanted to start today by just giving you some background about where we are in the pandemic, just very briefly. So, as some of you may have heard in the news today, the number of infections diagnosed in the United States has now exceeded those that were diagnosed in China and I believe the United States now has the highest number of diagnosed infections, which is not a surprise because we're the third most populous country in the world, after China and India.

Today's numbers are that there are -- and this is already -- I'm looking at the John Hopkins website and seeing that this is actually a little out of date in just a few hours. But as of around 10 a. m. this morning, it was 85,419 cases diagnosed in the U. S.

with 16,979 diagnosed since yesterday for an increase of 20%. The total number of deaths in United States is 1,260, up to 266 from yesterday, which is also about a 20% increase from yesterday. We know that all parts of the United States are now reporting cases of COVID-19 and in some places, things are accelerating, in particular, New York City and some other urban centers. And some places where early centers of increasing illness are beginning to see some control, and I'm speaking specifically about Seattle. What we're seeing right now in the United States is what we call the acceleration phase of this -- of a pandemic, which means that the number of new cases is rising exponentially, and we don't know how long this is going to continue.

We hope that the social distancing efforts, as well as the 15 day pause, are going to buy us some time and help bring this under control. I just want to note also that worldwide, almost every country in the world now has reported COVID-19. And that for travelers in the United States who may be looking to travel to other countries, CDC has raised a level three warning for 59 countries, that's just a reflection of how prevalent and advanced this pandemic is in many other places. So, let me turn to talk a little bit about who we -- who we know is at most risk for COVID-19, is -- is that okay to move in that direction?

Yes, please Dr. Brooks, please proceed.

Thank you. So, we -- we know that persons at particular risk for this disease are adults over the age of 50, and particularly adults over the age of 65. Data from a number of countries, including both China and Italy and now also in the United States, clearly show that older persons are at higher risk of severe disease and for death. What that means is that places where older people are congregated are -- are locations where we want to pay particular attention to ensuring that infection doesn't reach them. I'm sure you've all heard Ambassador Birx, who's leading the effort for the vice president's task force on the news, reminding folks that we need to cocoon and protect our elders, particularly those in long term care facilities, and nursing homes, and the like, but it isn't just age.

In general, in -- in medicine, we know that people who have certain underlying medical conditions, regardless of their age, are also at increased risk when faced with a respiratory infection. Consider a young man with cystic fibrosis, a young woman with asthma, or a -- a severely overweight young adult, these are persons who may be young, but these underlying conditions really increase their inability to manage a severe respiratory infection well. I want to let you know what the current list is of those underlying medical conditions that we have posted on our website, which you can find if you go to the www.cdc.gov/COVID-19 and then look for the tab for at risk populations.

We have posted there that important high risk underlying conditions include people with chronic lung disease, that includes moderate or severe asthma, people have serious heart conditions, persons who are immunocompromised, that can be due to cancer treatment, advanced or uncontrolled HIV infection, organ transplantation, and chronic heavy steroid use, and people of any age who are severely obese, as defined as a body mass index greater than or equal to 40, and have certain other underlying medical conditions that are not well controlled, such as diabetes renal failure and liver disease. I'm often asked, what do we do -- or what do we advise to healthcare providers who, themselves, may have some of these underlying conditions? Of course, those of us in healthcare are human beings too, and suffer from all the same things everyone else does. And this is an important consideration because we also want to protect our healthcare workforce. These people are on the front lines heavily exposed to this infection and in that way, are at high risk of acquiring the infection and we want to do what we can to keep them active in helping us, but we also want to protect them to the best we can. Our answer to this question has been that each medical organization needs to decide for itself how it wants to best manage this to ensure that first, these healthcare providers are protected two ways that we know folks have thought about doing this is by either making sure that persons with some of these underlying medical conditions have access to the best available PPE, or that people in these positions being moved to other work where they're not necessarily in contact where they could be exposed to someone with COVID-19.

I'll just say that -- you know, it's a difficult -- it can be a thorny issue because a healthcare organization has to be careful not to inadvertently disclose that one of their employees has an underlying medical condition that could be a privacy issue, and I

think though -- I can -- I can tell that Dr. Peacock, Morris, and I, on our own regular jobs, have -- had to manage people of HIV, or TB, or some other problem. So, we look forward to hearing solutions that different places come up from -- come up with, rather, when they're faced or that kind of a problem. There's a lot that we want to get through to -- through today, we're about 10 minutes in. And if you don't mind, I'd like to turn it over to Dr.

Peacock who can address a couple of other questions. Dr. Peacock.

And I think I was going to turn it to the moderator because I -- I think they have some questions to pose, I think.

Okay. Thank you. Yes, please go ahead, moderator.

Thank you so much, this is Commander Khan. Dr. Peacock, we will do the Q&A session at the end of the COCA Call, like usual, so you can go ahead with your presentation, and then pass it over to Dr. Morris. And when she concludes, then we'll do a comprehensive Q&A session over all of your presentations towards the end.

Thank you.

So, I know the one thing that people have been asking is whether chronic lung disease or asthma are putting people at higher risk for severe illness from COVID-19. And what we know is that chronic lung diseases, including chronic obstructive pulmonary disease or COPD, which include -- includes emphysema, chronic bronch -- and chronic bronchitis, as well as moderate to severe asthma, idiopathic pulmonary fibrosis, and cystic fibrosis may be associated with severe illness and for our outcomes for COVID-19. Based on data from other viral respiratory infections, COVID-19 might cause exacerbations of chronic lung disease leading to severe illness. Currently, we don't know if patients that have mild or well-controlled asthma might also experience worsening of their asthma symptoms when exposed to COVID-19. We also know that tobacco smoking can increase the risk for developing lung disease, making it harder to recover from lung diseases or infections, such as COVID-19, and so we do encourage you to have your patients quit smoking or think about that, and they can call 1-800-QUITNOW or visit the CDC website at www.cdc.gov/quit.

www.cdc.gov/quit for help or more information about that. Another question that we have had coming into us here at CDC is regarding heart disease. And currently, there is -- we know that certain serious heart disease does put people at higher risk for severe illness from COVID-19. Currently, there's insufficient information available to determine if certain types of cardiovascular disease are associated with more severe illness, but what are limited data from the U.

S. , and China, and other countries has shown us is that there are people with certain kinds of serious heart disease, such as heart failure, that put them at higher risk for severe illness. This is consistent with other respiratory viral illnesses that can lead to

decompensation of heart failure, which then leads to more severe illness. We also know that influenza patients with heart failure have a significantly higher mortality than those without heart failure. Some of the other conditions that may increase the risk of severe illness might include coronary artery disease, congenital heart disease, cardiomyopathy, and pulmonary hypertension.

And that comes to the next question that we have been hearing many questions about or getting a lot of questions about which is, whether hypertension increases the risk of severe illness from COVID-19. We do have observational knowledge that there's an increased risk with hypertension, but we don't know that whether have -- having hypertension, alone, does increase that risk for severe illness from COVID-19. We are working very hard to try to understand this and trying to understand whether hypertension is an independent risk factor. What we do know is that people with hypertension should take their blood pressure medicines, as directed, and work with their primary care provider to make sure that their blood pressure is as well controlled as possible. And so, now I'm going to turn it back to Dr.

Brooks who is going to share some information about ACE inhibitors.

Yeah, thanks, Dr. Peacock. I think that what you've just pointed out really raises a question a lot of people have, which is, if I have a patient who's on an ACE inhibitor or an ARB, you know, should I stop their treatment? And as you were pointing out, we don't have good evidence yet to understand why we're seeing an association epidemiologically with hypertension but we haven't got good evidence that that's actually causing a problem in terms of managing COVID-19 and people with hypertension. So, we've -- we've -- we recommend at the present time that you not stop these drugs in people who need, them they're taking them for a clear medical indication, and they need to continue those drugs. And on the other hand, we also don't recommend that, among people taking them, that you increase the dosage or that you start treating people with one of these drugs because there is -- there has also been some talk among clinicians on different blogs that may be adding an ACE inhibitor or an ARB may be protective against either getting COVID-19 or ameliorating the course of illness.

So, I think we really just stay the course there with regard to treatment until we know better. I did want to just jump back to one point that I neglected to share with folks is they may be wondering how we arrived at the list that I just described. And what I want to say is, this we -- as Dr. Peacock pointed out, we know a lot from other diseases what the kind of usual suspects are, if you will, for on underlying medical conditions that really can adversely affect people when they're challenged with a pulmonary infection. And what we've done here is get that list to those conditions that we believe really put people in the highest risk category in terms of complications.

Certainly, there be -- may be milder forms of other conditions out there that may could increase risk. And, if, in the course of our experience with this pandemic, we see that happening, of course, we're going to add them. We want to be as accurate as we can,

follow the science, and make sure people are aware if they need to protect themselves. But right now, we're listing those that by our limited experience is less published and from what we know from prior experience are the ones that we feel very strongly or ones that you need to be paying close attention to. Let me ask Dr.

Morris, do you want to talk a little bit about underlying medical conditions as well?

Yeah, sure. Thank you very much, Dr. Brooks. So, we've -- sure that we've been posed this question and -- and folks are asking about, what about their patients' risk with one of those underlying medical conditions? So, can we describe associations or -- or quantify the risk based on what those conditions are. And, unfortunately right now, we -- there are insufficient data for us to look at each risk and -- independent of the others and understand how much risk that may translate into in terms of a patient's overall condition, and or projected outcome.

We are actively working, as Dr. Brooks mentioned, to both epidemiologically and through clinical investigations to understand that risk, and how they manifest themselves here in the presentation of disease here in the U. S. Obviously, reviewing what we're learning from, the experience that's going on in China, in Italy as well, among other places, but really trying to actively look at how those -- those risks are being manifested here. People -- I think it's important to emphasize that people of any age with underlying medical conditions, particularly if these conditions are not well controlled, might be at risk for severe illness, and so I think Dr.

Brooks made that point. But while we do understand that age does correlate with severe illness, we want to emphasize that these underlying conditions are important, regardless of the age in which we're seeing them.

What about treatment for COVID-19?

Want to talk a little bit about that. Right now, there are no -- currently, there are no medication that are approved by the FDA to treat COVID-19, and there are no available vaccines at this time. So, right now, the non-pharmaceutical interventions are the most important kind of response strategy against COVID-19, and kind of maximizing our supportive and adjunctive care, whether it's in or out of the hospital. There are some ongoing studies for the use of Remdesivir particularly, also in the use of hydroxychloroquine and chloroquine both as treatment, and for pre and post exposure prophylaxis that are ongoing. You can actually see descriptions of these trials at [clinicaltrials.gov](#).

[gov](#). We're also trying to digest all of that information and present it on our website. So, if you look to [cdc.gov](#) and COVID-19 in the clinical management section, you can see a summary of information. But these data are -- are still being actively looked at, and new studies are ongoing with active enrollment, so I think it will be some time before we can see the evidence that would really base our advice on management.

The one thing I do want to mention that's also been posed and we have tried to understand a little bit about is the treatment of fever and whether or not to use NSAIDs in the treatment of fever. And I think there have been some reports that were concerned that there was an association with the use of NSAIDs and worsening or severe disease. The FDA, the European Medicines Association, WHO and CDC are continuing to monitor the situation and will review any new information. But presently, there are no scientific data evidence establishing this link between NSAIDs and the worsening of COVID-19. So, I think it's just important for folks to -- again -- use that adjunctive therapy to try and -- you know, control the fever, use what's needed for pain relief, but there's no association that we know of between NSAODs.

I think it's important, you raise an important point, which is there are other options for controlling fever. So, if you are concerned about this yeah, certainly, there are other options, but we also recognize some of the people of underlying medical conditions, like arthritides, arthritis, -- in particular, and other joint disease, that they really depend on these drugs. And so, there's no -- in -- in the absence of evidence that they're harmful, we really don't want to have folks move away from them. I'll just add, Dr. Morris, which you kind of alluded to, the concern that was raised is very theoretical and it hasn't -- it really wasn't based in much real scientific observation, but if more comes out, we'll be interested to know about it.

And one other point that she made that was -- oh, you want to -- you want to add something.

No. No, go ahead.

I just want folks to understand what you're saying all of what we're recommending now - - what we're recommending is social distancing. And this is very important for those of you who work with these kinds of people is that the best way they can protect themselves is on -- is to isolate themselves, not socially isolate. We want people to stay in contact with people because social interaction is important emotionally. But physically, distance themselves from people so they don't become infected. And to be proactive at explaining to people, please don't get close to me -- you know, or please stay away, I love you, but we're all doing this.

Yeah. So that's the last point I really wanted to -- to add was just that -- you know, as a provider, how do you talk to your patients with these underlying medical conditions and frankly, you all -- you know, know your patients the best, you have a sense of their overall health, and how well their conditions are managed. And so, of course, it relies mostly on your clinical judgment, and your knowledge of your own patients. That being said, I think these messages that are getting -- hopefully getting out there and -- and hopefully we're all hearing, to stay at home, as much as possible, to really limit your exposure to others, to keep that social distance, to encourage your patients to closely follow their care plans. I think Dr.

Fauci said, there's no better time to -- to watch what you're eating and get your glycemic control -- you know, optimize, to take your blood pressure medicine, all of those things, there's no better time than getting those things under control right now. Of course, wash your hands often. Avoid touching your face. Making sure that folks know how to access care if they start to feel symptoms, or if there's something with their underlying conditions that are worsening because you -- you, as providers, know your patients the best, having someone within you and your practice that may be able to talk with the patient about, are they having worsening of their underlying conditions? Are they experiencing new symptoms, that might be concerning for COVID-19? Those kinds of interactions, whether they're via telehealth -- you know, or simple even through patient portals are very important for our folks who have underlying medical conditions. So, making sure that they kind of know exactly when and how to access care I think is a really important piece of this -- for our folks with the underlying medical conditions, both for their care, but also for their anxiety and mental health.

And so -- actually picking up on that and thinking about mental health, I think there are a lot of patients that may be struggling with some stress and anxiety around this time, as well as clinicians, themselves. And we know that the fear and anxiety about COVID-19 can be quite overwhelming for many people, especially those who are at higher risk for serious illness or those that are experiencing this social isolation that we are recommending to help protect them. So, some of the things that you can do to talk with your patients who may be feeling anxious, angry, sad, or overwhelmed is to encourage them to take actions to reduce their stress. Some of the concrete things you might recommend is to take breaks from watching, reading, or listening to news stories, including the social -- social media, eating healthy food, exercising, making sure that they get some sleep, taking time to unwind and do activities they enjoy, and talking with family or friends by phone, text, or email. We do have a -- the phone number that if they are feeling very overwhelmed, there is a phone number that's 1-800-985-5990, which is available 24 hours a day, 7 days a week, or they can text talk with us to 66746.

I'd also like to direct people to the CDC website and the CDC is doing a lot of work with social media, posting on different social media sites with these messages so that people who may not have the connections that they usually have that may be either watching TV, or on internet, looking at Facebook pages, and things like that are also getting these messages about how to cope with their anxiety and stress. These are also important points to take in from a clinician perspective. It is -- is very important that healthcare professionals and other responders are able to do the work that they are expected to do but acknowledge that this is a really stressful time for very many people. So, one of the things that you can do and look for in -- in coworkers is symptoms of stress and also looking at -- for things like fatigue, or illness, fear, withdrawal, or guilt, and thinking about the support that clinicians need during this very challenging time.

Great. Thank you. You know, while I was listening to you speak, Dr. Peacock, I -- it made me remember I wanted to come back to something, which was to -- and I think you too, Dr. Morris, that alluded to the fact that there's sort of an intersection of age and comorbidity.

And where we really see that is in the people over 65 -- you know, the -- in the -- in the United States, so far, people over 65 have comprised 31% of the cases -- you know, half of hospitalizations, and about half of those who've been admitted ICUs and about 80% of those who died. And it's because, often, people who were older suffer not just from one but from multiple comorbidities, and that multiplier effect is something that we need to pay attention to I think when considering who we need to watch out for and take special care treating and taking care of. I'm wondering if it might be a good time for us to take some questions. It looks like we're about a half hour in and I'm sure that many people have questions they'd like to raise for. Commander, is there questions?

Thank you, Dr. Brooks. Yes, there are quite a few questions, so I'll go ahead and get started with our Q&A session. I want to thank everyone for providing our audience with such useful information on this rapidly evolving pandemic. We appreciate your time, of course, and value your clinical insights on this matter.

For our audience, please remember, you may submit questions through the webinar system by clicking the Q&A button at the bottom of the screen and then typing your question.

So, we received quite a few questions because the audience members are busy so they may have joined a little bit later in -- in the -- today's session. So, could -- could you please summarize, where are we in the state of the pandemic in the United States, please.

Absolutely, I'd be happy to. I'll just -- I'll just repeat some of what I said before, but as you know, there's increasing community spread in the U. S. , the number of COVID-19 cases is rising quickly. As of yesterday -- as of today, rather, were at 85,419 cases of whom of about 17,000 were added between yesterday and today, that's about a 20% increase.

And just glancing at the Johns Hopkins map, we're -- we're moving quickly towards 100,000. We -- this increase is, of course, is entirely expected because we are in the acceleration phase of this epidemic. And by the fact that, as we roll out testing and make it more available to people, we're going to be seeing a lot more diagnoses that are being -- going to be reported to us. So, this is concerning, of course, to us, and that's the whole reason we're here, but not entirely unexpected. The COVID it now is being reported in every state in the United States and pretty much every country in the world, and so it's affecting the whole world presently.

And we are going to do our best to try and mitigate this epidemic in the United States.

Thank you so much, Dr. Brooks. Our next question says, thank you for sharing the list of severe illnesses source -- that can be associated with COVID-19 complications. However, in your estimation, who would be at most risk for severe illness based on their place of residence?

Thanks. Yeah, that's an excellent question. So, in -- the way I think about that is is, where are the places that the people who are either older or have a lot of underlying medical conditions may be together, so that would be the sort of place I'd be most worried about. And I think top of that list are long term care facilities, nursing homes, and those kinds of places where some of the elders in our culture and society are -- are gathered. You know, we -- some of the first infections were detected in the United States in these facilities.

And as many of you have probably seen in the news, these have been facilities where the infection can spread rapidly among these very vulnerable people and has very untoward effects. So, that really is a -- those are among the people who are most vulnerable and where we really want to focus our attention. I would say also that there is no geographic part of United States that is spared from this. You know, some -- I just want to add something here, we know that people are at higher risk in urban settings because there are a lot more people and more opportunity to interact and spread infection, but these settings also -- urban settings also tend to have higher levels of healthcare. What really determines how well people are going to do with this infection is the quality and access to healthcare that's available.

And we have had -- had there been concerns raised by the vice president's task force in their addressing this, how can we help rural areas deal with this if it gets out into communities like that? So, we are going to be hopefully having more guidance around that soon, if it's not out already, in helping communities respond.

Dr. Brooks, I'd like to add something too. You know, in addition to what you were referring to in terms of where our most vulnerable elderly folks gather, we are -- you know, concerned and -- and thinking about our folks who may -- as you mentioned -- have poor access to care, maybe have less socioeconomic resources -- and a population I work with in healthcare for the homeless, for example, so folks that may be -- you know, living in congregate settings, whether those are group homes, or shelters, or other kinds of facilities, like rehabilitation facilities, and may not have the ability to socially distance in -- in a way that we would find more optimal at this point, particularly as those -- as those folks become symptomatic, we need to think -- be thinking and working with our health departments as to where we can send folks while they are being tested, and so they can remain comfortable, have wraparound services, make sure that their needs are met, and still be isolated from others so that we're not inadvertently creating a situation where transmission can occur in a large congregate setting. So, I think our health departments, as overwhelmed as they are, have been thinking about these types of congregate settings as well. This is Georgina Peacock.

I also wanted to add that -- you know, there are concerns about patients that undergo dialysis and sometimes people in these long term care facilities and places like that be transferred to places to get outpatient dialysis, and so it's really important that they are - - that there are the CDC Infection Prevention and Control guidances that are paid attention to because of this movement of very vulnerable patients back and forth. And we know that those patients that are having dialysis often have -- you know, they have

end stage renal disease, they may be more vulnerable to infectious diseases because of the impaired innate adaptive immune responses, and they may have other chronic diseases as well, so it's all those things combined, maybe even older age as well, and so it's really the -- the most vulnerable patients that we're very concerned about.

It -- I want to add one list -- one more group of people to think about, which is folks who are in the justice system particularly, those in jails or prisons who are clustered together and I don't have an easy answer there, but I know we have colleagues who are working on ways to ensure that they are protected as well from this illness, and not necessarily be forced into close contact.

Thank you, presenters, we have questions about age. But before I go into that, I want to remind our audience that CDC hosted a COCA Call on clearing for children and pregnant women as it relates to COVID-19 on March 12 and we did another COCA Call on information for long term care facilities on March 17 and you can find recordings of both COCA Calls at emergency.cdc.gov/coca. With that, I want to ask a question that relates to both age and condition.

First, who is most at risk for severe illness because of their age? And who would be at risk for most severe illness based on underlying medical conditions? Can you delineate between the two and elaborate? Thank you.

And so, this is Dr. Peacock. So, we know that age is a significant risk factor, so the older, the -- the -- the older people are, the increased risk they are for serious -- serious complications, including hospitalization, ICU admission, and death. There was a report that was released from the CDC about a week ago that showed that increasing risk with age and showed that I think approximately 85% of deaths occurred in people over -- over the age of 65. We also know that people -- the older people are, the more underlying conditions they have, and so that is really additive in the -- the sense that if you have these underlying conditions that we're talking about and you have older age, that altogether, puts you at even higher risk.

Thank you for that. Next -- next question gets a little bit more personal. I appreciate that you all talked about healthcare providers, and the stress, and things that they may be going through. So, the question that our inquirer asks is, what if I'm a healthcare provider and I have an underlying medical condition that happens to put me at a higher risk for severe illness from COVID-19? What guidance do you have for this person?

I'm not aware that we think -- that's an excellent question. As I mentioned earlier, we don't really have specific guidance on that area, but -- because this is something that really individual healthcare programs and networks need to decide themselves based on personnel practices. Our recommendation, of course, is that we want to keep healthcare workers at the front of the line helping us in managing this real onslaught of disease in some locations. But because they're more vulnerable, it's incumbent on us to protect them, even more so than we might a person who is -- does not have an

underlying medical condition or isn't over -- isn't in the older age population. So, we'd recommend prioritizing -- and these are things in other places have done -- either prioritize access to the highest level and the highest -- best quality PPE for these folks, or -- and or reassign them to duties where they won't be encountering people that may have COVID and pose a risk of infection to them.

You know, as before, this is like -- this is something that can be a delicate issue because you want to take these actions without inadvertently disclosing someone's underlying illness or condition, but that's something I know that many places have experienced doing, I just like to always remind folks that you have to be careful about what others might say. And protecting -- you know, just as we protect patients personally identifying information, protecting our own as well.

Thank you for that. Can you share CDC's rationale on how they identified these conditions that put people at a higher risk for severe illness from COVID-19?

So, as we -- as we said -- as we mentioned at the outset, our rationale was this, there's a long list of conditions that all of us I think recognize increased risk of -- increased risk, to some degree, for either more severe illness, or even mortal illness in people who get a respiratory infection. Until we know more about COVID-19, we have put at the top of the list those conditions which we know from ample prior experience give -- confer the very highest list a person is worthy to be challenged by having to manage COVID-19. We also considered what's published in the existing literature. Unfortunately, most of that is just not specific enough, it's general cardiovascular disease, general pulmonary disease, and we really wanted to hone in in those categories among those things across the range of cardiovascular and pulmonary diseases, those that were really putting people at the greatest risk. Having said that, we are constantly watching the literature, listening to our outside partners, and stakeholders, and gaining from their experience new knowledge.

And as our knowledge improves around what these -- what other conditions may be there that we haven't thought about or that need to be highlighted, we intend to very rapidly communicate that and update our list thank.

Thank you for that. We have a follow-up question on that and that specifically calls out the heart disease portion of your presentation. And can you please speak to just the incidence of hypertension increasing the risk of severe illness, one. And follow-up would be, would you recommend ACE inhibitors or ARBs be stopped in patients? You mentioned something in your presentation and our inquirer heard part of it, so they want you to answer that.

Thank you Commander Khan. We've actually answered that question a little bit earlier. And so, what I-- with some -- with your discretion, I'd like to move maybe to a different topic to help people maybe that something they haven't -- haven't heard yet, yeah. And let me talk a little about something I know well, which is immunocompromised. You

know, a lot of Americans are benefiting from some remarkable new medications that can treat autoimmune diseases in particular.

And we know that these medications can also put a small hole and make people a little bit at risk for some bad infections. And so, in that way, there are people who have medical treatments they may be immunocompromising them. There are other people who are in the midst of cancer treatment from radiation, chemotherapy, and deep -- in some cases, high doses of steroids that can also immunocompromised them. And then, although we're doing a great job in America with treating HIV infection, too many Americans don't have access to the full wealth of treatment we have available and still have low CD4 cell counts that are immunocompromised. So, what do we -- you know, what do we say about this? Well, I first want to point out to people that we here at CDC, together with our colleagues at NIH, and a number of external organizations have posted guidance for folks who have immunocompromising conditions so they can get their questions answered and what we would recommend they do in particular.

You know, it's interesting that in one of the studies from China I thought that patients with cancer had an increased risk of acquiring COVID-19 and it's unclear to us at this time -- and this goes back to what I was saying before that we haven't got a good view of what it is about cancer, but our -- our suspicion is that it wasn't necessarily the cancer, itself, but the treatment for cancer that was driving the risk for complications from COVID-19.

Dr. Brooks, did -- can we speak maybe specifically to HIV infected patients? I know there's been a lot of discussion on the infectious disease blogs and things like that about the [inaudible] study and also -- you know, patients who are taking ARTs or not taking them and what that may mean for their risk.

So, yeah. But thank you, that's an excellent question. So, with regard to action treating HIV infection, this is a priority to protect somebody because the treatment is extraordinarily potent these days that not only can raise somebody's CD4 cell count, that means going to restore their immune system, but incidentally, it also can prevent them from transmitting that infect -- HIV infection to others sexually, so it's a win/win that -- in that way. The question about antiretrovirals is a good one. There's been a lot of interest in the combination tablet sold commercially as KALETRA, which contains the two medicines, ritonavir and lopinavir from some herbs -- from some research done overseas looking at its potential utility to treat two related diseases, SARS and MERS.

We have some early data in a very -- you know, well-controlled but unfortunately very small study that did not demonstrate that taking this medication increased -- improved a person's outcome. I -- I would say at this time it's too early to say that it doesn't have some effect, but in the absence of a clear benefit, we would not recommend that people use this drug to try and prevent themselves from acquiring or to treat themselves when they're infected with COVID-19. And I just want to highlight what the consequence of this rumor blog has been, I mean it -- I -- we have been hearing from pediatric colleagues where this drug, ritonavir and lopinavir is one of the real mate -- one of the

drug that's use most heavily in the pediatric population and has become very difficult to find. We could work -- thankfully, we have a cabinet of medications for treating HIV that's deep, you know, so we can move to other medications. But when these medications are recommended for something and we don't have strong evidence for it yet, it really can do three things.

It may harm the person taking it, can [inaudible] drugs come as a side effect. It may deplete the supply of the medication for people who need it for medical -- medical condition that we know it treats. And people may be falsely led to believe that they're taking something that may make them safe to be around other people with COVID-19 to prevent them from getting it, and we, unfortunately, don't know that that's the case at all right now.

Right. And I think that's a -- a good point that -- to be made about to hydroxychloroquine and chloroquine as well. You know, chloroquine has traditionally been used in the treatment of malaria, it is no longer been a drug that we've used in the U. S. much at all.

Hydroxychloroquine -- you know, is used for a number of autoimmune conditions, -- you know, and so what we're finding now is that in the process of -- of studying these medications and -- and learning about their use, -- you know, we have to understand -- you know, or -- or maintain what's available. We -- we are really -- as a CDC is -- is -- our stance right now is to really support the use only in the setting of clinical trials. We do not know if there's benefit. We have yet to really see what the results are and so it's really important that the use is -- is being done in that monitored operational setting.

And I think that's really important that we remind folks that if you are, for some reason, considering using chloroquine or hydroxychloroquine ,which we don't recommend at the present time for COVID-19 that it -- when -- if -- if that happens, that it be done in the context of the medical encounter where you're supervised by a clinician and is prescribed because there are people who need it. And we understand that there may soon be some ways that our government is going to start making this medication available yeah in a controlled fashion to make sure it's done safely for people to see if it works to treat COVID-19, clinical trials, as you mentioned, Dr. Morris, and other places. I just want to remind people of the consequence of what can happen if you -- if you don't use the medication in this way. There was a poisoning this week in Arizona where a couple who had chloroquine phosphate, the same drug that's used medicinally for treating lupus, RA, like hydro -- hydroxychloroquine is the one for that, it's in the same family in there, malaria, they had that product because -- in their household -- because it's used for cleaning aquariums and for treating fish disease.

And they thought that if they took it, it would protect them from getting COVID, and unfortunately, the husband died, and the woman is in the ICU right now being treated. So, we want to remind people that if you're exploring these sorts of things to please do it in a way that's medically supervised and under the direction of a doctor or other healthcare provider.

Thank you for that spirited discussion. I have multiple questions coming in about repeating the 800 number and the information the Dr. Peacock I believe shared about mental distress. Would you care to re-emphasize that please?

Sure. So, the 800 number is 1-800-985-5990, or you can text talk with us to -- so TALKWITHUS to 66746. They're -- these resources are also available on the CDC website. So, if you go to the main CDC website and click on the COVID page, you will see that there is a section on managing anxiety and stress, and these numbers, as well as numbers related a hotline for domestic violence, as well as the suicide hotlines are also on there.

Thank you for that. We have a follow-up question related to your recommendations on ACE inhibitor and ARBs. Are there recommendations or opinions that you have on switching patients with cardiac diseases who are on ACE inhibitor, ARBs, to other I enter hypertensive, such as calcium channel blockers?

That's an excellent question. We -- we're -- we're really privileged in the United States to have such a wide spectrum of antihypertensives available to us. I mean I would say that the decision to switch someone should be driven by the medical indication related to hypertension and not due to concerns about the potential benefit or the potential harms of those medications in a person who may be -- may -- may get COVID-19. As I think -- we have said before a couple of times that there's been a lot of speculation, there's very little data, and we're -- were -- we don't want to do something that may be based on speculation that is done in that -- with the best intension, but may inadvertently harm someone.

Thank you very much. Another question asks, are you recommending people with chronic conditions to be screened for COVID-19 for -- in order to have better outcomes than those who may not be screened because they weren't displaying symptoms?

Excellent question. You know, the -- it's -- we, in the United States, we continue to have limited testing available, although that's changing very quickly, thanks to a lot of investment of resources. Nonetheless, we do have to consider carefully how we prioritize people for testing in order to make sure that we reach and identify the people at greatest risk for illness. There is an app available on our website that I think we can look up. I'll try and give you later the -- the web address for it where people can go in and enter information about themselves to see if -- based on a prioritizing schematic -- whether they should consider getting tested right now.

I'll also say that part of this lies in the clinical judgement of each person's provider and it's a discussion you should have of the provider. Lastly, anybody who has symptoms that would be consistent with this disease should consider seeking out testing, and particularly, people with underlying medical conditions. Dr. Peacock, do you have that

web address where people can access the app -- or maybe Dr. Morris, to access the app to check for themselves?

Yeah. Sure. So, actually, the -- the easiest way to get to it is if you go to www.cdc.gov and there's a tab that is what to do if you're sick.

And if you immediately hit that tab, you'll see a self-checker box that you can -- that will walk you through -- you know, your risk factors and your symptoms in order to kind of help to think about, should you be calling somebody right away? Should you be -- you know, presenting somewhere to get tested?

Right. We need to really reserve test for those people who need it most right now.

And I'd also like to add, so in addition to information that you can give to your patients on figuring out what they should do next. Clinicians, if they have questions and they need further help with CDC guidance related to COVID-19, healthcare providers and health department staff that have questions can access the CDC COVID-19 clinical call center 24/7 by calling 770-488-7100. Again, it's 770-488-7100, and this call center is staffed by trained clinicians who can answer questions about guidance for healthcare professionals, for healthcare facilities, health departments, and laboratories. And I know that sometimes when things are really complicated and there needs to be a consultation with the health department, and a hospital system, and CDC clinicians here, and other people working on the different guidance, we also have the ability to get everyone on the phone together, and try to figure out a way to support you all.

Yeah. This -- I want to just point out, this -- this service is available, again, 24/7, and it can facilitate these conversations between all the players in a decision to make the best informed decision. It's -- I will say, I've -- I've actually called it myself when I was seeing somebody over at my clinic and I was pleasantly surprised, and -- and I don't go mean to be self-aggrandizing or an advertising but -- you know, we all work for the government, it's not always perfect, but this was a really nice service.

Thank you so much for those resources. Our next question kind of goes back to what -- Dr. Brooks, you were talking about hydroxychloroquine. So, the question asks, what is the availability of scarcity of hydroxychloroquine projected to be? As a rheumatologist I have tried to start alternate DMARDs where I would have normally gone with hydroxychloroquine? Am I being unnecessarily conservative with hydroxychloroquine or can I use it as before?

Unfortunately, we don't have a -- a -- the three of us here in what we're doing within the response don't have good visibility on those issues, which are really related to FDA, and the strategic -- the strategic national stockpile, which is run out of a Department of Health and Human Services.

You know, anecdotally, I'd say we -- we have been made aware of folks that have likewise expressed a concern about not having hydroxychloroquine available for their

patients who might be maintained -- you know, they're autoimmune diseases or disorders maybe better controlled with the use of hydroxychloroquine. And so, again, I think it's the same comment that you made before, Dr. Brooks, about when that medication is indicated -- you know, for the rheumatology condition or something that we hope that that's what this medication is being reserved for, unless it is being used in the context of a clinical trial.

And many people are trying to make sure that we don't run into a shortage for people for whom this medication is indicated and that are benefiting from it and where stopping it or changing could be harmful. Some strategies that have been used in other disease situations faced through the same problem are doing a test drive with the alternate -- alternate drug to see how well it's tolerated and then switching when necessary, and also reminding people not to access drugs over the internet -- you know, from a -- a -- or another non -- non-licensed pharmaceutical source, and not to -- and definitely not try this dish cleaner that's out there, the substitute for the medicinal medication they're taking because of the risk for harm, or counterfeit medication.

Thank you for that. Another question we have is, if we have a patient -- an asthmatic patient who has an exacerbation and is wheezing and might have COVID-19, do you have recommendations for the use of albuterol, steroid use, etc.

I -- they certainly should still continue to treat the asthma as they typically would and follow the typical asthma plan that they have, as well as any additional treatment that would be needed to -- to think about -- to COVID-19,.

And if they become ill enough that they need to be seen by a doctor, by all means, seek out evaluation. And I think -- I think all emergency rooms and frontline providers are well aware is considering COVID-19 and people of exacerbations of pulmonary disease right now, thankfully.

Thank you so much. And we have time for one last question and our question asks, if a patient is concerned that the hospital that they have to go to might not have a ventilator, should they bring a ventilator with them, if they have one at home?

Well, that's a very interesting question. I -- if -- certainly, if you have an FDA approved ventilator device in your possession at home, which I imagine some people do. My mother had polio her entire life and although she never needed to use a -- a respirator, certain -- I know -- certainly, among her group of friends growing up, there were people who had these kinds of devices at home, not necessarily a ventilator, but -- you know -- so I can imagine maybe at home, certainly, bring it in if the place does not have a ventilator. That said, I'd also make sure that you look around ahead of time if you think that is going to be something that is of concern, I mean I'm imagining the reason the person has a ventilator at home is they may already have a condition that merits its use

-- to look around and make sure that the -- they can find a hospital it has them. And -- you know, this might be a question to call in to our phone line to answer.

Again, I'll give you that number for our clinical team, 770-488-7100. 770-488-7100.

Thank you, Dr. Brooks. And on behalf of COCA, I would like to thank everyone for joining us today with a special thank you to our presenters Dr. Brooks, Dr. Peacock, and Captain Sapna Bamrah Morris.

The video recording of this COCA Call will be posted on COCA's webpage at emergency.cdc.gov/coca soon after the call ends. Again, that web address is emergency.cdc.gov/coca. Please continue to visit emergency.cdc.gov/coca over the next several days as we intend to host COCA Calls to keep you informed of the latest guidance and updates on COVID-19. In addition to our webpage, COCA Call announcements for upcoming COCA Calls will also be sent via email, so please subscribe to coca@cdc.gov to receive these notifications. Please share the invitations with your clinical colleagues. As stated earlier, we intend to hold a COCA Call on Tuesday April 2nd at 2 p. m. Eastern where the topic will be clinical management of critically ill adults with COVID-19.

Here, you will hear firsthand accounts from clinicians who have treated COVID-19 patients. Additional information will be shared shortly via emailed call announcements and should also be posted shortly on the COCA Call webpage at emergency.cdc.gov/coca. To receive information on upcoming COCA Calls or other COCA products and services, join the COCA mailing list by visiting emergency.cdc.gov/coca/subscribed.asp. Again, that's emergency.cdc.gov/coca/subscribed.asp. To stay connected to the latest news from COCA, be sure to like and follow us on Facebook at facebook.com/cdc-clinician-outreach-and-communication-activity. Again, thank you for joining us for today's COCA Call and have a great day.