

The scientists call it Ncov-2019, and it's making a lot of Americans very nervous.

Welcome to SBH Bronx Health Talk, produced by SBH Health System and broadcast from the beautiful studios at St Barnabas Hospital in the Bronx. I'm Steven Clark.

Late in 2019, the novel coronavirus first began infecting humans in a seafood and live animal market in Wuhan, China. In recent days it has gotten plenty of media attention. According to an article in the New York Times, the Corona virus "caused a lockdown at 56 million people in China, disrupted travel plans around the globe and sparked a run on medical masks from Hubei Province in China to Bryan, Texas." With us today to discuss the coronavirus is Dr. Ed Telzak, Chair of the Department of Medicine at SBH Health System and an infectious disease specialist. Welcome Dr. Telzak.

So, I know there are fast moving developments already with the Corona virus how serious should we be taking this?

I think there are several lines of evidence that suggests this is something we should be taking very seriously. Today, several hours ago, the World Health Organization declared this an international medical emergency and I think for good reason. We know a fair amount about coronavirus in general, but there's a lot we don't know about this particular species of coronavirus. What we do know is that in China there have been almost eight thousand confirmed cases, likely many more. There have been 170 deaths in China related to coronavirus. Perhaps more. There is now coronavirus in over 20 countries. There were five cases in the United States and a sixth case was identified. What's unique about this last case is that it's the first episode of person to person transmission in this country. We shouldn't be surprised about that. There's a lot of evidence that that has been occurring with increasing frequency in China, but that's what makes it alarming. It's no longer the Wenshi seafood market and spreading Corona virus to people. It's now people spreading the virus to one another and that's what's of great concern.

So what do you do? How do you protect yourself?

Well, I think that it's much more than an individual protecting themselves. I think the full public health infrastructure being brought to bear to try to control virus and not only this country, but in many countries around the world, and I think the fact that it's been declared an international health emergency by WHO will bring additional resources to the places that need it most, which at the moment is really China. There are many things that we're doing at the city level, at the federal level and at the international level. So, for example, flights that are coming in from China are now being screened at 20 airports in this country. Locally, for the last few days at both JFK and Newark International Airport, individuals have been seen by physicians from the Center for Disease Control before deplaning. Their temperature is measured, they're queried about whether or not they have any symptoms and today to the best of my knowledge, no patient in the New York metropolitan area has been hospitalized for this, but there's a whole mechanism for putting a mask on the patient, probably quarantining the individuals on the flight. If that's of concern we hear at St Barnabas have begun in the emergency room and an ambulatory care to ask patients and it's a hard stop on our EMR, meaning every patient needs to be asked whether they've undergone international travel in the last 30 days, in fact, that's probably too longer period of time less 14 days should be adequate, but if they said, yes, I've traveled internationally there then our entire list of respiratory questions and travel related questions to find out whether they've been in contact with an area that where there might be spread of the novel coronavirus.

Well unless they were in that province, what other concerns are there?

Well, so they're actually every major city in China has at least a modest outbreak. So I think it's much more than Wuhan and the province that it's in. It's really anyone now who has been in China and is coming to the United States and many other countries around the globe are being screened by the temperature screens since that's such a seminal sign associated with coronavirus and respiratory

review, and if so indicated that that patient would be sent to a hospital and isolated.

What do we know and what don't we know about this particular virus?

Well, typically when an outbreak of this kind occurs what we learn, we learned from a particular subset of patients and those are the sickest patients. So it's very hard. At this point, because we know patients who are hospitalized, that's where the Chinese data has really come from, by and large we know what the sickest patients are what we don't know or let me say what we do know is we know the incubation period. There's been enough person to person transmission that we have a very good sense that it can be as short as two days or as long as 14 days and 95 percent of the patients based on a review of 425 cases in China transmission has occurred within 12 days, so I think that 14 day tail end is pretty good. That's very important information. I think we know that it can be a lethal disease. What we don't know is how capable the virus is of being transmitted. And so, for example, in viral epidemics, there are certain viruses that, measles virus, for example, on average, when there's a case of measles that individual will infect 12 additional people. The very preliminary evidence is that this coronavirus will infect two people. Sorry was two and a half people, but I think we need to learn a lot more about what the spectrum of illness is are there many people who are a symptomatic or they're many people that have very very mild disease. What will the death rate ultimately be and so I think there are a lot of things that we're still learning about this virus.

But obviously we do know it's an airborne illness, right?

We know it's in the airborne illness. Yes.

And we do know the symptoms if there are symptomatic situation right?

We know that it's a respiratory virus primarily, although there are some individuals that might present with gastrointestinal illness, but we'll still have respiratory symptoms as well. And I think it's important to state that this is not the first very serious coronavirus outbreak. We've dealt with in the turn of the century in 2002 to 2003, also originating in China, the SARS virus, which is severe acute respiratory syndrome, that wound up killing 750 individuals, but ultimately became contained. There was also coronavirus that is highly prevalent among various animal populations and the SARS virus is believed to have come from the bat population 10 years later, and that seems to happen in cycles of 10 years, which is probably a coincidence, but was MERS. So SARS had a death rate of about 10 percent.

Well, It's pretty high.

Very high. MERS had a death rate of 25 percent, and it's Middle Eastern respiratory syndrome and so those two viruses we learned the dynamics of the virus. I think we have certain advantages now that we didn't have even 10 years ago. So, for example, China compared to the SARS virus was much more forthcoming with information. It doesn't mean that we have all the information from China. Obviously, there are reasons that try to contain it, but we gotta jump on it. They also have genetically profiled the virus already and that's available for public view. There are already people at NIH and CDC looking for fragments of the virus that might be available for vaccine development.

Does that mean we can test people right now for that? So if someone is feeling ill and you find out where they travel to you can actually test them and quickly get an idea?

Yeah. So we have it. So we have a similar test if we don't have that. In this country don't have availability of the test, but CDC and if this does become a much more widespread illness, eventually hospitals might have it. But they have a test very similar to the flu test. It's called a reverse transcriptase PCR preliminary, Chain Reaction uses the same technology. An answer can be available within the day. Right now, you know there have been very very few cases in this country. I think

that's important to emphasize here. There have only been six cases. There's a lot of screening going on, there are persons under investigation, but there have only been six cases

None of which are in the New York area.

Correct none of which are in as we speak today the northeast right. The furthest case East has been in Chicago, but New York does have the largest Chinese population in the country, and this has been a time of year when lots of Chinese people travel in both directions and so I don't think it would be a surprise if, in fact, a person or more than one person was to come down, but we do have the ability to diagnose it. There has been training in our hospital and other hospitals about what sort of infection control interventions are required, gowns, gloves, masks, personal protective equipment. I either goggles or eye shields and how to obtain proper specimens to make the diagnosis and so I think we are we're poised if a patient was to come in to immediately isolate them to make sure that anyone who goes in their room is appropriately protected and to make a diagnosis. There are no treatments for coronavirus. It's supportive care. It seems as best we know now, the best majority of patients do well and supportive care is adequate. But once again, it's a very dynamic process, and that story is still unfolding.

If you had a flu shot does that afford any protection against it?

Absolutely not. This is a completely different virus. There's no cross protection. It's a world unto itself, but I would since you've mentioned the word flu. I would take this opportunity to emphasize that flu, which we're dealing with now is a lethal epidemic and flu kills 50,000 people a year on average. In the 2017-2018 season, 80,000 deaths were attributed to flu. We have in New York State had 10,000 hospitalizations so far this year, so you know I think we have to keep things in perspective. I think coronavirus is new. We don't understand it. But if it was to turn out to even approach what flu did or does every year, it would be horrific So flu is still, though that's not the subject of this podcast right,

So we can't overlook the fact that flu is here and has been and it's gonna be here a week 23 weeks a couple of months from today.

And everyone should be vaccinated. I think that's the important point if we ever come to the situation where we need to vaccinate against coronavirus and we have therapies for coronavirus that would be great, but we have to understand that we haven't maximally used those technologies, those interventions, for a virus that we deal with each and every year

Are we finding that with the corona virus that? People are more vulnerable to it who have compromised health or younger or older.

So I think you know once again, very preliminary in the Chinese experience that's been published. There was a New England Journal article that came out yesterday that describes the first 450 cases in China, both cases that were acquired in the seafood wet market in Wuhan and person to person transmission. There is close to an equal distribution of men and women. I think it was 55 percent men, but the average age was close to 60, so it's affected an older population, and so that's not surprising that an older population would be more vulnerable and surprisingly, very, very few children have been infected. Yes. I'm not sure why that is. I don't think anyone has an explanation. But in these very early stages, children seem to be less vulnerable.

It seemed with the swine flu a lot of children were affected.

Yes. So you know it's a different viral dynamic, could be related to exposure, but you know I think that's why we need more time with this virus to really understand that could be once it's introduced into a home children may be as vulnerable, more vulnerable, or maybe less vulnerable, and I think time will tell although China has closed, I think the majority of schools certainly in Wuhan and much more broadly.

I'm taking it a little bit of afield here. The FDA came out with a report the other day about Purell. I don't know if you saw that about its claims of protecting people from everything from MRSA to Ebola. Are you familiar with that?

I'm not.

They were just saying there were certain statements made by Purell, saying, basically you know what soap and water does, we do every bit as good and I guess there's some question whether any studies that prove that.

What we use is alcohol-based sanitizer in the hospital, except for very specific situations. Typically with the viral infections that we had alcohol-based sanitizer is adequate and I think the classic and time-proven notion of washing your hands many times every day is probably at this stage, the most effective way to prevent not only flu, but if coronavirus were to be to occur in in our communities., hand washing is the Holy Grail and particular because with influenza, for example, if it can get on your hands, you know in the next 10 minutes after you listen to this podcast count, how many times your hand touches your mouth your nose your eyes, and that's how it's spreads from hands into the respiratory system. So washing your hands is really an essential infection control intervention.

Do you feel that the you find that patients at the hospital here are aware of the coronavirus and are showing concern?

I haven't heard that yet. I actually just spent a lot of time with one particular patient who has an infection that we're trying to figure out and I was waiting for him to say you think it could be a Corona virus, doc? You know I would think in the Asian communities it's of enormous concern, I think less so in in other communities so far. Although apparently masks really throughout the country and on Amazon have been bought out and are hard to come by, which might present a problem. I think at this point, there's no reason for people to be wearing masks and you could even argue that it might be counterproductive, but what would be a concern is that masks won't be available for all the reasons that that hospitals really need them. So I think masks are being bought out, which suggests that concern and knowledge, or concern is widespread knowledge less so, but I haven't seen that be an issue at SBH so far.

Yeah, I mean I you know, it's funny. There's a real balancing act here between being concerned and panicking and I keep seeing a picture of the guy taking the number four train you know in the Bronx and he's sitting next to a guy who's hawking and shnorten away and showing his pictures of his recent trip to China and the question is do you say, hey, look nice talking to you move to the next car, or do you say look you know there's really nothing to worry about here.

So I think there are reasons to be concerned. I think the public health community, the hospital clinical care community, I think the political is very attuned to wear things are and I think the particular example you gave would concern me greatly. A person who just got off a plane from China, who's doing a lot of coughing. That's a patient who should put a mask on and should speak to their doctor and notify their doctor about what's going on and the doctor should make certain arrangements for the patient to be seen without waiting in a waiting room for two hours. But I think, right now, the people are very cautious people, are getting prepared. Hopefully the level of preparedness will never need, but I think things are being geared up in case cases do occur, but I think we're acting appropriately at the moment.

Okay. Well. Thank you. Dr. Telzak this is great information and thank you for joining us today on SBH Bronx Health Tal. For more information on services available at SBH Health System. Visit www.sbhny.org. Until next time.