

Will vaccines return life to normal?

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

Hospitals expect vaccines from Pfizer and Moderna to arrive shortly. Those produced by AstraZeneca and Johnson & Johnson are expected to be ready soon. This comes at a time when the United States is reporting more than 3,000 daily deaths from the virus. The Hail Mary that the government and the public have desperately been waiting for during the surging pandemic is almost here. Yet, there are still lots of questions, some information and many unknowns that need to be addressed. Back by popular demand to help us deal with this is Dr. Ed Telzak, chair of Medicine at SBH and a long-time infectious disease specialist. Welcome Dr. Telzak and thanks for joining us.

So can we trust these vaccines? After all, they went through trials in record time and obviously cut some corners. Do you recommend taking it?

Well, if given the opportunity I would be first on line to take either the Pfizer vaccine or the Moderna vaccine. I think that, you know, every decision in life is a risk/benefit analysis on some level. Getting in your car, getting on an airplane. I think we know, in no uncertain terms, the potential devastation of being infected with the SARS co-v2 virus and developing Covid-19. You know we've seen enormous death and destruction in the Bronx, in New York, throughout the country and throughout the world. The data on vaccines are I think remarkable, certainly remarkable in their efficacy, at least short-term efficacy and seem to have good safety profile. Now, you know on one hand, so let's say let's take the Pfizer vaccine for example, you know 25,000 people have been injected with the Pfizer vaccine. Based on the available data and there'll be more data coming out and we'll hear what the FDA has to say today ultimately but the side effects of the vaccine, though not trivial, are also not serious and so we're weighing the potential of preventing the development of Covid in enormous numbers of people, having a 90 to 95 efficacy rate, it means that a clinical trial if equal numbers of patients get the vaccine and get placebo for every 20 infections 19 will occur in the placebo group and one will occur in the vaccine group. That's as efficacious as almost any vaccine. So we're weighing what appears to be a highly effective vaccine with a minimal risk, though not zero risk, against a disease that is highly destructive, causes enormous morbidity and mortality. You mentioned the figure 3,000 deaths per day. Just to give that some context that's how many people died in the World Trade Center and our country changed because of that event. We fought wars because of that event and that's the number of individuals who are dying from Covid each and every day in this country.

So Dr. Telzak you're not concerned about some of the reactions like you know we saw in the UK? A couple of people who were allergic, severely allergic had reactions to you you're not concerned about that right?

You know I think the majority of side effects and vaccines occur within the first two months. They usually occur immediately but if they don't occur immediately they occur within the first two months and part of the requirement for these two vaccines were that they needed two months of follow-up after the second dose on every participant, so they have two months of follow-up and

the side effects are not severe. Now, you know there are lots of aches and pains people took days off from work because of headaches, because of fever, but they were short-term and they resolved and both of these vaccines intentionally excluded those who were known to have very allergic reactions to a variety of different items. So the two healthcare workers in Britain as I understand it had a history of severe allergies. I don't know what their allergies were, but they had a history of them and that would have been a group that was excluded in the vaccine trials. And so I would say based on these two cases to be as safe as possible that if you have a history of severe allergies you should not get the vaccine until we know more about, you know how these individuals did, and if someone with severe allergies does get a vaccine they should probably be observed for you know the amount of time that it took for these two individuals to develop their what I assume was anaphylaxis, a severe side effect.

Are there others who should be excluded as well from getting the vaccine?

Well I think children under the age of 12 or 16. It's not been studied in that group. Pregnant women. It's not been studied you know among women who are pregnant and so I would say for groups in whom it's not been studied they for now should not receive the vaccine. I would also hasten to add that both Pfizer and Moderna made very significant efforts to recruit a very diverse patient population in terms of race, ethnicity, underlying illnesses and age, and so there's good representation of Hispanics, of African Americans, of the elderly, of people with diabetes and asthma, obesity, and the findings are consistent. As best I understand, I haven't seen any of the data specifically, but across all of these groups the vaccine was very effective.

Is there any reason to think that if you had Covid and you have antibodies that you should not take this vaccine?

You know I don't think we know enough yet. What I would say is that testing negative for antibodies was not a criteria for getting into the study and so there will be a sizable proportion, maybe ten percent – you know ten percent of twenty five thousand is twenty five hundred – so let's say a sizable number of individuals who would have received the vaccine who are antibody positive and we'll see how that group does, you know, with the vaccine. So far, to the best of my knowledge, so far there's not been any undue side effects in that group. I think similarly for the control group who provided they stay in the placebo group and don't get the vaccine, and that's actually a very contentious issue at the moment, is whether the placebo group should be getting the vaccine. There are scientific reasons why you would want them to stay in a placebo group. We would find out the proportion of the placebo group who have antibody what proportion ultimately developed Covid 19 so we get a much better and systematic sense of the durability of immunity. Right now it's primarily in the case report mode where people after three months a certain you know number of case reports and series have shown that they can still get Covid, whether it's a milder disease, whether they're at lower risk, much lower risk, we could know conceivably if the placebo group in this trial or other trials stay unvaccinated. I don't know that that's going to happen.

So do you see this vaccine is something, it'll be like a flu shot, it'll be given in a recurring basis where every year you've gotta you know get a new Covid-19 shot?

I hope that's not the case. You know I don't know and no one knows the answer to that so we don't have the benefit of following people for a year, for two years. You know I think the group that enrolls in these trials, the 45,000 people that enrolled in the Pfizer trial, the 30,000 people that enrolled in the Moderna trial, the Johnson & Johnson trial, they will be followed for a minimum of two years and so I think over time we'll get a much better understanding. We'll know whether or not, you know, after six months is a vaccinated group getting infected, developing Covid? What type of Covid is it? Severe Covid? Is it mild Covid? Or are they not getting Covid? Do they have a more durable protection? We simply need time to be able to understand those issues with any degree of, you know, of accuracy.

Now we know that hospitals and nursing homes will receive the first batch very shortly. When can the public expect to be vaccinated?

You know the CDC has come out with recommendations about different groups to get vaccinated and they've you know recommended as you suggested that healthcare workers should be the first group that gets vaccinated, followed closely behind to those in nursing homes. But it's not the federal government's decision about how the vaccines are utilized. It's up to the individual states and I would say that in New York State the decision has been made that basically health care workers who have the greatest exposure to Covid, ED, people who work in the emergency department, people who work in ICUs, people who work on the general medical floors where there might be a great deal of Covid will have equal access as nursing home workers and the elderly who live in nursing homes so I think how it's going to be distributed in a New York State between those groups, I think remains a little bit unclear. Nursing homes also would have less access to the very cold freezer requirements for the Pfizer vaccine in particular. Those are the two groups that will have initial access to the Pfizer vaccine and then, you know, hopefully uh on the heels of the Pfizer vaccine will be the Moderna vaccine which is the same type of vaccine an mRNA vaccine with remarkably similar outcome in terms of efficacy and seemingly in terms of side effects. I think it's very supportive data for this type of technology, which has really not been ever used before. This is the first time that mRNA technology has been used for vaccine development and on both trials with large numbers you know they got very similar results.

But if you're a middle aged person say living in the Bronx and you don't have any underlying conditions when can you expect to be able to get vaccinated?

So let me just say I recently received an email with a cartoon that said that if you want predictions on Covid you should speak to journalists and not doctors. So but having said that I'm sort of parroting many of the experts that I've heard on this particular issue. I would say that if you don't fall into you know the categories of being a health care provider, of being an essential worker, of being an adult with a high risk medical condition or being over the age of 65. So if you're not in any of those groups which will be the priority groups my guess is that you'll have vaccine in the uh very late spring, early summer. However, those four groups that I've mentioned are you know over 200 million people so that's a lot of people that will get vaccinated before mid to late spring.

What do you think Dr. Telzak at about whether it's employers or whether it's airports or stadiums or whatever making the vaccine mandatory where if you work in a certain place you need to have it done if you're going to go to a ball game you need to show that you've been vaccinated or you go on an airplane what do you think about that?

Right, well, you know I think herd immunity has gotten a really bad rap and you know and certainly the concept of herd immunity through acquisition of the virus and getting infection is a crazy crazy idea and you know with all the death and illness that we're seeing now it's estimated that only about, you know, 10 of the population or 15 of the United States has had infection and has some level of immunity. But what I would say is that if we could achieve a level of 70 or 80 percent – so the 10 that have been infected an additional 60 or 70 or 80 percent that get the vaccine – I think we would be a very well protected country so it's not necessary that everyone be vaccinated you know there are people that you know depending on how on the durability of the vaccine but assuming that the vaccine has long protection which is a big assumption not everybody needs to be vaccinated for large events or small events to safely occur, but it would have to be I would you know estimate something in the range of 80 percent between infection and vaccination of the population to provide a safe level of return to many of the activities that now seem, you know, life-threatening.

Right now, after you get vaccinated can you relax? Can you take off the mask. Can you limit the restrictions or is it going to be business as usual?

I think for the foreseeable future it's business as usual. It's going to take a long time before, meaning six months or more if we're lucky and if we're thoughtful and if we're committed to getting large groups of individuals who might be distrustful of the government, might be distrustful of vaccinations, those are major hurdles so I think for the foreseeable future there's really no uh letting up physical distancing mask wearing, small groups activities outside, lots of hand washing, those are the sort of seminal elements of keeping safe for the next four or five months at a minimum before we move on.

The last question I have on vaccines is what would you say to that person who's dubious about getting it for whatever reason. What would you say to them?

You know very very succinct manner well you know there's a whole study and body of literature about speaking to people who um are in principle against taking vaccines and if your goal is to be persuasive and try to convince them to take vaccines, you know arguing the benefits of vaccines doesn't seem to work, I think that there will be a sizable minority of individuals, and I don't know exactly what that percent is, that you know across many socioeconomic groups who will in principle refuse to take the vaccine I don't know whether one can be persuasive or not. I'm not that optimistic. I think there are many people that are on the fence and that as hundreds of thousands and then millions and then tens of millions of people take the vaccine, and as they see hopefully that there are no near mid- or long-term side effects I think many of the people that are on the fence perhaps 25 percent of the population that are on the fence will wind up likely taking the vaccine. I think there are you know a group of people who are not going to take it. So we're really talking about the vaccine in the United States and if we're going to effectively deal

with Covid we have to recognize that this is a worldwide pandemic that people get on airplanes people fly Americans travel, a lot of Americans want to travel a lot and it's really important that to recognize that for Americans to be safe the entire world needs to be vaccinated. And for that to happen even though you know we have we'll have the Pfizer vaccine here, we'll have Moderna, those are not optimal vaccines for much of the resource poor world where there's lots of Covid, let alone the middle, you know the middle income world like uh you know Brazil, India and there are vaccines that still very effective, but might only require one shot instead of two might have much stringent requirements such as the AstraZeneca, just needs to be refrigerated doesn't need to be in a deep freeze, so I think that it's imperative that we continue investigating vaccines both in this country and internationally so that we can find a range of vaccines that would be more acceptable to those who are on the fence or to those who simply will not be able to access vaccines that have very stringent requirements and our mindset needs to be well once we get vaccinated that's it's over we're fine this is a worldwide problem and if there's one thing that we that we should have learned is that what starts in one country given how people travel given how business is conducted we're really one world and we need to deal with Covid as if we are one world.

Right I guess the caveat is it's not going to end tomorrow we're not going to get back to normal anytime soon.

I think that's very accurate today.

We're in the second week of December. We've seen an uptick in cases in the Bronx, in New York City. Is it going to get worse before it gets better?

You know I think most people listening to the podcast have a pretty intimate understanding of the devastation that occurred in March, April and May across New York City, specifically, and I don't think, I pray, but I also don't think we're going to have that degree of infection, hospitalization, death, devastation again. New York, the city and the state, really from July onward up until let's say a month ago was really doing a superb job in controlling the virus. Rates in New York City when they were doing you know 30, 40, 50,000 tests a day were in the one percent range and as many public health experts predicted as people went indoors as people tired of very strict adherence to the principles of social distancing and mask wearing and hand washing rates, rates were going to go up and sure enough in New York City and in the Bronx we're in the five percent range at the moment. The zip codes around St. Barnabas are between five and as high as nine percent with large numbers of people being tested, some symptomatic, many not symptomatic. That's still better than much of the country, but it's continuing to go up and with the rates going up hospitalizations are going up, so for the many months when the rate was one percent, New York City hospital rates were very low, at St. Barnabas it was the rare day that we had more than three or four patients with Covid in the hospital. That's been a steady increase. Today, for example, we've had 27 patients with Covid. Our ICUs have not been overwhelmed. We have very few patients in the ICU with Covid. They're largely isolated on one floor. They're getting medication that we didn't have or didn't use in the same way during the spring earlier this year whether that's having an effect. Whether they're coming earlier, whether because we're not being overwhelmed the doctors and nurses are really able to deliver very high

quality individualized care to the patients that are in house now because it's a manageable number. My bias is that having a major beneficial effect on the patients. We've not had a death this month from Covid. So you know I think that my expectation is that next week, and the week after we're going to see increasing rates in the community, more hospitalizations and more patients who require ICU care as a result of Thanksgiving. That I think there'll be a Christmas and New Year's effect that we'll see in the middle of January. You know, I hope we don't but I believe we will. And concurrently we're going to be vaccinating people so I do think that we'll see many more Covid patients, many more patients hospitalized. I think it's unlikely that we're going to see anything near what we saw in the spring. I think there'll be high numbers. You know I think we're preparing for those numbers in a variety of different ways by developing more ICU beds, more monitored beds, more negative pressure rooms, different ways of delivering oxygen, having standardized guidelines for treatment. I think we have adequate PPE for the entire staff. We're beginning proning at a much earlier stage, so I think there are tools we're utilizing. I hope that we get through the winter, which I think will be hard. I think by every criteria it will be hard, but I think the spring coming on, you know, March I think there will be light. I really want time to speed up. I enjoy my life to a reasonable degree and I'm happy with the pace that it's going, but I would really like the next three months to speed up and to get to the spring.

Right. Is it fair to say that even though you know patients cannot expect the red carpet treatment that President Trump or Rudy Giuliani may have gotten, we've reached the point as I think you've mentioned that we now have the tools to support the needs of most patients so we don't have the kind of outcomes we had nine months ago?

Right, but I would emphasize that you know I might be sort of a minority opinion on this, the best interventions that we have are not the new interventions, not the new therapeutics. They're oxygen with you know newer ways of delivering oxygen. They're dexamethasone, which is a steroid that's been around you know 50 plus years. There's proning, which is basically having patients move around, lie on their belly not just on their back so they open up different parts of their lung at different times. There's Remdesivir and the monoclonal antibodies. The medications that the Giuliani's and the Trumps and the white house staff got I think are really more marginal medications. They've not been shown to have a mortality benefit. So we use them, but I think it's the attention to patient needs, medical needs, other needs and the older tools that we have and that we're able to deliver because we're not being overwhelmed by sick patients are what's making the difference. And I think the newer therapeutics are you know maybe on the margins they're helping. Neither of the drugs that you know Giuliani got and Trump got are game changers for most people, most of the time, and I doubt they had dramatic impact on what would have happened to people connected to the White House.

You've mentioned that you hope the next three months speed up. Do you think people should feel gun shy about coming to the hospital for non-Covid-related situations?

You know as best we can tell they've not been gun shy so far and they shouldn't. I think a lot

of the excess mortality that occurred in the spring was likely due not to Covid that didn't come to the hospital, but was due to the multiplicity of other acute events – strokes, heart attacks, abdominal catastrophes, other infections – that patients might have had but they wouldn't come to the hospital for fear of getting Covid. I think right now we're in a place where we can effectively separate Covid from non-Covid and so I think it's very very important that if patients are having symptoms that are very disturbing and are potentially life-threatening or they think they might be life-threatening that they should seek medical care.

Do you think unlike other parts of the country do you think compliance, like with mask wearing and social distancing and the like, have really been supported in the Bronx?

I haven't been to other parts of the country. I'm sort of sitting tight these days, but I speak to people in other parts of the country many places still do not have a mask mandate and the state might have it but the local county won't have it and local counties in many places Trump states in terms of adherence so I think that obviously in New York masks have been very strongly encouraged. There hasn't been any stick associated with not wearing masks. You know people really don't get fined. You know they're given a mask. I think adherence to mask wearing in the Bronx is good, but it's not great just based on my own observations and I do travel around the Bronx a reasonable amount. I see many situations, areas, places where people are not wearing masks. You know I think that's true in many other communities in New York and I think there are some communities where I guess you know notorious communities would be areas in Brooklyn where ultra-orthodox Jews make a point of not wearing a mask. But there are many communities in New York where there's an extremely high rate of adherence to mask wearing and I would say in sum New Yorkers are on the right side of the curve, the correct side of the curve in terms of wearing masks.

Final question: the holidays are coming up. What are your recommendations for the end of year holidays, New Year's. What do you recommend people do and not do?

I would recommend that if the weather is like it is today, that if you absolutely have to have a small gathering, that you try to have the gathering outside and by a small gathering I would say not more than five people. I know state guidelines are you know 10 or fewer. I would say a gathering of five with perhaps the five people representing one other household rather than two households, outside or physically distanced inside if possible, with the windows opened are what my recommendations would be. I know how hard it is. I think we've all been isolated. Thanksgiving, Christmas, New Year's, the holiday times. Kwanzaa, Hanukkah are all times when families get together and families need and want to get together more now than perhaps ever, but we all have to hold on for another few months when vaccinations will be more plentiful, when outdoor gatherings can be more common, when greater numbers of people are protected because of vaccines. Once again if you must get together outside is always better than inside. Windows open are always better than windows closed. Small less than five are always better than larger numbers. Limited numbers of families who live together are better than larger numbers of families who don't live together and stay physically distanced with masks when you're inside or outside. I think those are the rules that are really tried and tested. They're simple

but they're not easy but that would be my very very strong guidance for everyone in the Bronx, in New York, around the country and around the world.

Okay, that's a good way to end. Thank you Dr. Telzak for joining us for a few minutes on SBH Bronx Health Talk. For more information on services available at SBH Health System visit www.sbhny.org. Until next time