

Speaker 1: The <inaudible> variant has swept across the country. Emergency rooms are stretched to their

Speaker 2: Limits. We are again, seeing many of our own get ill and have to be out of work.

Speaker 3: This one is really like a tsunami

Speaker 1: Right now. It

Speaker 4: Just feels like we're waiting to see how bad it's really gonna be

Speaker 1: Welcome. I'm Mary O down as time passe and the COVID 19 pandemic evolves. So do the pressures on our healthcare system and its people today. We're joined by someone who has been on the front line since the [00:00:30] beginning to discuss the recent surge, new treatments, new health concerns, and what might be some light at the end of the tunnel. Lewis Nelson is a practicing phase and chair of the emergency medicine department at university hospital in Newark and a professor for New Jersey medical school. Hi Louis.

Speaker 3: I'm Mary. Thanks for having me.

Speaker 1: Thanks so much for joining us today. My pleasure. Can you tell us a little bit about your role and how you and your team of clinicians [00:01:00] are holding up?

Speaker 3: Sure. I mean, as you've mentioned, I'm chair of the department of emergency medicine at the medical school, but, but much more apropos today's discussion. I'm chief of service. Uh, basically the doctor in charge of the emergency department at university hospital in Newark. And, you know, it has been a challenge and I think everybody that's lived through this, uh, whether they're in medicine or not recognized is that we're dealing with unprecedented times. Uh, the, uh, I tell you not a day goes by that. I don't feel inspired [00:01:30] by the people that I work with. Uh, everybody that's there, the physicians, the nurses, the support staff, every single person that shows up to work and wears the smile and does their best take care of the patients who are coming into the emergency department and into the hospital and all of our, uh, you know, facilities in order to provide care to the patients that we are, are supposed to manage. And, and it is just, it is an amazing experience to watch. And you, you recognize of course, that many people have left the healthcare field, but those that remain, [00:02:00] they are truly wonderful.

Speaker 1: You know, you talk a little bit about how many people have left and I have, um, doctors and nurses in my family, and I see the strain, um, that these past two years have had on them. And, and you've been through the entire period, um, at university hospital. So much of what people are worried about right now are the concerns, not as much, much of the concerns in the community affected by the pandemic, but on our hospitals. And, you [00:02:30] know, talking about our hospitals in particular as being that critical battlefield, um, and the healthcare workers staffing at the hospitals is even a bigger concern than the number of patients coming through the doors, because so many

people have either been sort of forced out because of the impact of the pandemic on their family or burnout. Um, you know, what insights do you have on how to address for those who remain, um, and [00:03:00] continue to the battle? How do we work to try to address those levels of stress in our healthcare providers, not just the clinicians, but as you mentioned, all the staff that make sure that the facility is ready to, to support the workers and the patients.

Speaker 3: Yeah. Uh, this is something that we face on a, on a daily basis and there's probably no single answer that would, that would address all of the issues. Uh, there's, there's no question that many people have left, uh, [00:03:30] the workspace altogether. I mean, they, the so-called great resignation, uh, healthcare has been POS probably affected more than most others, if not the most of, of all of, all of the different workforces that we see. And certainly probably the most critical of the ones that we routinely think about. Uh, when you talk to people about what their stressors are, some of them are about personal safety. I don't think we'll ever really be able to address those folks adequately. I mean, it, it's just inherently unsafe to be put in a position way. You're dealing [00:04:00] with patients who come in sick, you know, and most patients who came in sick before didn't really give you, or didn't carry a high risk of giving you disease.

Speaker 3: Whereas now I, you know, it's just, it's an impossible task to not be able to, to protect yourself completely to the degree that most people would feel satisfied. So those that remain are willing who absorb that risk and feel comfortable doing so in no place, is that more obvious than in the emergency department, uh, everybody in the hospital and I would take this, uh, away from nobody, everybody [00:04:30] faces great challenges every day, dealing with that risk, but, but the ed, just because of the way we work and in the tight confined space with, with unlimited inflow and very limited out flow of patients, we just, we just expand, you know, limitless. Um, well,

Speaker 1: You never know what's gonna come through the door in the emergency department.

Speaker 3: Right. And it's absolutely. Yeah. And you, you know, again, not to take anything away from anybody else, but there's a limit to how many people you could put on any given unit in the hospital. But the ed just seems to have an unlimited capacity to care for people. And we do, we take care of anybody that's [00:05:00] sick that walks in you. What it means is for people that aren't sick, they might wait for a while and that's something we're apologetic for, but hopefully everybody understands. Um, but, but again, to the, the stress issues about safety are, are very difficult to, to, um, overcome. I mean, we provide personal protective equipment. We provide as much protection as we can, but it's just given the, the, the workplace that we're in. It's, it's hard to, to, to really accommodate. Uh, but for many of them, it's things like money.

Speaker 3: Uh, you know, you can't get by that. I mean, uh, [00:05:30] everybody's got a price. If, if you, if you would, for, for, you know, healthcare providers are really no different. And, uh, we see that many of the, many of the, uh, shortages are responsive to money. Uh, this is one of the problems we've seen with nursing. And I, I use the word problem perhaps in quotes, but many nurses have left staff positions to go and take agency work. And, you know, in agency work, I don't have details of specifics, but they make two

times plus the money that they would make. If they stayed on as a [00:06:00] deposition, they lose certain benefits and there's other, you know, good and bad about doing that. But certainly money talks, uh, you know, there are, there are wellness issues about family concerns and taking care of children that are out of school and, or, you know, other family members who, who are sick.

Speaker 3: And these are things that is, society is gonna have to come up with ways to address, you know, even, even putting people, children into, into preschool or, or care centers or older people into facilities carries in and in, and of themselves, their own stressors, whether it's [00:06:30] safety, risks, or financial risks, these are just tough things to solve. But I think the one thing that we're doing, that's not going solve the problem is we're going to give people a little bit of financial incentive to the job. And I think that that will have a measurable impact, although it won't solve the problem.

Speaker 1: So Louis tell me, you know, I have lots of hospital workers or, or nurses and doctors in my family. And one of the things that I try to do is just send them care packages, even the school nurse saying, thank you. Um, I feel like it's, [00:07:00] it's really straining and, and I don't know how much it helps, but I try to do those little things just to show gratitude, because it's such a hard time. Do you feel like that's the kind of thing that people in the community or, um, you know, neighbors can do for the healthcare workers that they know?

Speaker 3: I, I think that everybody really appreciates being appreciated. So I think that anything you can do to show that sort of appreciate for people is worthwhile. Uh, some of us feel more that this is our role and responsibility [00:07:30] and others feel, uh, that, um, we, we like to get that sort of validation. Uh, so it's really hard to say that it's gonna work in every situation and something people may or may not appreciate it, but I certainly don't think it's gonna really hurt to show that sort of appreciation there historically early on in the pandemic, there was a little bit of guilt associated with the, the outpouring of emotional support that people are having. But I think as it's gone on for two years now, I think we've, we rightly understood that that just like we appreciate others who are doing their job, whether it's stock and [00:08:00] grocery shelves or, you know, driving buses and taxis, I think getting appreciation is still a nice thing.

Speaker 1: So we should all keep trying to do that and say, thank you and, and be kind to one another. So talk to me a little bit about this most recent surge in cases the Omicron variant has been different from the prior waves and a of different way ways. Can you talk a little bit about that in terms of either the severity or how it's affecting different parts of our population?

Speaker 3: Yeah, it's, it's, it's definitely [00:08:30] different. There is no question about that. One of the questions is why it's different. Uh, and you know, obviously the virus might have changed. Uh, it might be that we have a different base sign level of, of immunity in the population that so-called approaching herd immunity that we we've sometimes talked about early on or the flattening of the curve, um, regardless, uh, compared to what it was like in March and April of the beginning of the pandemic in 2020, uh, where literally in the emergency department, [00:09:00] every patient coming in was at death's door. I

mean, we would, we weren't, you know, our volumes in the ed drop by 50%, but what, what came in in that, in place of those patients were very sick people and it was, it was quite gr and there was a lot unknown about the virus and everybody was on edge and everybody was concerned about their health and their family's health.

Speaker 3: Um, we, we now see a disease, uh, where there are a lot of people who are minimally ill and there's a number of people who are moderately ill, but the very sick patients [00:09:30] that we used to see that represented 80% of the patients we saw now repress as 10% of the patients we see. So we see a lot of patients with COVID and you can see by the testing numbers, that the, the number of people that have COVID positive tests, very high, the number of people coming to the hospitals and the number of people who are very sick are much, are much reduced compared to what it was like earlier on. And

Speaker 1: In terms of how this is affecting the, from parts of our population, has that changed as well, early on, we saw [00:10:00] incredible disparities relative to race and age and, and individuals with underlying conditions. Is that all the same, or is it different in this wave? Because when you look at the data, it sort of piles it all together. So it's hard to see how it might be different now.

Speaker 3: Well, again, my population tends to be an African American population primarily, uh, and we definitely see, uh, within the strata of the African American, excuse me, of the Strat of the African American population, we see older patients [00:10:30] patient with more underlying medical comorbidities, suffering more, uh, particularly people with underlying lung disease, you know, diseases like diabetes. But, you know, we are seeing more younger and healthier people who are coming in minimally affected, right? These people might not have sought care in the past because there was so many other people seeking care, or it's, again, it's a slightly different disease perhaps than it was in the past. What we are seeing for sure is more children who are being affected in first waves to, you know, despite children being exposed [00:11:00] the same way they are exposed. Now, presumably, uh, we had very few children that came into the hospital and the number of children admitted was very small and it, it probably one of the fastest rising groups of patients in hospitals is children. And if you look at the CC data, it does support that. But having underlying medical illnesses is still the big risk for getting sick. There's no question, regardless of your race and where you live in the country,

Speaker 1: How do you think, um, being vaccinated has either mitigated the problem or, uh, [00:11:30] affected, you know, who's coming in because, you know, we know a lot fewer children are vaccinated than adults

Speaker 3: And absolutely well there. So there's no question that vaccination is probably the most critical thing that we've done to address the pandemic. Uh, it's probably what's changed the complexion of the pandemic. It's, you know, we talk about herd immunity and herd immunity can be reached either through getting sick and, and developing immune response to that or getting vaccinated. So this, this, this, uh, [00:12:00] underlying immunity, or at least relative immunity to getting, uh, COVID has clearly changed the risk, the, you know, the rate of illness and the risk of, of being hospitalized and dying.

But children have all always been UN unex, you know, UN vaccinated, the little children have always been UN vaccin and they still are. Um, so earlier on in the previous parts of the pandemic, we still didn't see a lot of little kids coming in. So what we do know is that the virus has changed.

Speaker 3: I mean, we know just by the names of them, that the original, [00:12:30] the wild type so-called the virus versus the Delta area, inverses, the Omicron variant, they're all different. And, and it's, you know, historically, you know, I'm not a virologist, but I've obviously read and studied a bunch of this, like many others interested in this have, uh, that if you look back at the pandemic in 1918 of the flu, that H one N one strain is the same H one, one strain that we have now in the, when we get, when we get the flu periodically, um, yet it's a much more benign disease. And [00:13:00] that sort of makes sense in a Darwinian evolutionary sort of perspective, where you, if you were a virus, you wouldn't wanna just kill everybody that you infected, cuz you'd never be able to reproduce <laugh>. So, so the successful virus is, are the ones that get you sick and allow you to be transmitted to other people, to propagate yourself. So it does make some sense.

Speaker 1: So it's evolving it easy,

Speaker 3: Longer to survive better. So the fact that we say that this virus is more contagious and transmissible and less virent and less likely to cause [00:13:30] severe disease makes sense. In addition to the fact that many people with lying disease have been immunized or vaccinated, so they're less likely to get sick. So that's why, what we're seeing is a lot of low level illness cause viruses, I'm sorry, vaccines are not perfect, but what they do is they mitigate the illness. They don't necessarily prevent it completely, but you can still get a runny nose or a sore throat, but you're not gonna be hospitalized. You're not gonna die, which is why they're so important. Little kids though. It might be that the virus [00:14:00] has changed and little kids, children just have more susceptibility to this new version of the virus, for whatever reason, whatever change of the spike protein occurred, as the variants evolved, children are more susceptible to them.

Speaker 1: So we'll have to keep, keep watching and see learning from the data on that. Absolutely. Another thing that really is different between the beginning of this pandemic and where we are today is the rapidly developing improvements in terms of treatment and learning how to treat and also [00:14:30] having, you know, sort of pharmacy and pharmaceutical interventions and tools for treatment. Can you talk a little bit about if someone tests positive for COVID, what kind of options they have available to them now, either, um, by, you know, if they called their doctor or came to the hospital in terms of treatment.

Speaker 3: So early on the first treatment that we had available were, were exogenous antibodies were antibodies that we would give you when you didn't have the ability to make your own antibodies. And early on, we took [00:15:00] plasma from people who had been infected and we gave it to other people, plasma contains the antibodies that that person generated against the virus on their own. Uh, the that's now evolved. So we package those antibodies from artificial sources, from, you know, from, from test tubes,

essentially, uh, they're called monoclonal antibodies. Um, but they're effective against these viruses and we will infuse them into people, uh, when they're at risk of illness after being exposed to, [00:15:30] uh, COVID it, uh, they're not really given, uh, until very, very recently with a brand new preparation, but they're not really given prophylactically to prevent you from getting sick. They're given to people who are infected and have a risk of progressing to severe disease.

Speaker 3: They work, okay. They're not great. They're certainly not as good as protecting yourself from getting sick in the first place, such as by getting vaccinated. But they do provide a certain degree of protection against progression to severe disease. There are [00:16:00] some newer drugs that have come out, uh, some that are intravenously infused in the hospital and some brand new ones that are given orally that interfere with viral replication. So when you get sick, it prevents the virus from overwhelming your body and your immune system. Uh, but again, you're sick and you're getting treatment. So it's, there's almost no situation where getting a treatment is as good as preventing the disease. So again, well, there's

Speaker 1: Never a situation <laugh> where you wanna get sick [00:16:30] and get treatment. You always wanna know not get sick in the first place, but so you said there's a pill too, the oral, um, medication, what kind, what kind of, um, medicine is that?

Speaker 3: Well, there are two different pills. Um, one of them, uh, is able to interfere with the way that the virus replicates its RNA, right? And we have an IV medication, does a, the same thing. So, you know, just like we have DNA, this virus has RNA, uh, and it interferes with the ability of that, um, [00:17:00] strand of RNA to sort of grow and expand. It's an analog of, one of the bases that's in that RNA. Uh, and it, and as that RNA is created it, uh, self terminates or it, it degrades and it's unable to create functional viruses. The other one, oh, go ahead. I'm sorry. So the other one interferes with viral replication in a different manner, not through, through base pairing, but through what's called a inhibiting, an enzyme. That's a protease that prevents the virus from replicating.

Speaker 1: So [00:17:30] if I'm sick, do I need to go to the hospital to get these pills or infusions? Or is this something that I could call my doctor's office after I had a positive test? And they would tell me what to do?

Speaker 3: Well, the originally up until about, I don't know, probably UN under a month ago, uh, you had to go to the hospital and get it infused or into, into an office setting to get it infused, cuz the medication which is called Ranvir is only available intravenously. There are two new medications, uh, one's called PAX livid, which is the brand name. [00:18:00] Um, and, uh, it, uh, is um, available oral and the other VIR, which is an other oral agent, which are both available by in pill form. The packs of it seems to be the better of the two and it's, it's a protease inhibitor. It's the second of the medications I was referring to and that's available by prescription. It is brand new. It is not yet widely available, but over time, obviously it will become more available and it does have fairly good on [00:18:30] reducing risk of hospitalization and death better than the other medication that I, that I had mentioned that's available orally. Uh, so we're gonna see how this progresses again over time and what it looks like once it's rolled out. But the, but the

pre-release data does look fairly promising, but again, it's not as good as preventing yourself from getting sick, but it's better than getting hospitalized and dying for sure.

Speaker 1: Okay. Let's talk a little bit about what else you're seeing in the emergency department, because as we said, you get everything there. Um, [00:19:00] you know, beyond COVID and patients that are sick with flu, um, like illness, what are the other types of maybe pandemic related, um, you know, other challenges that are walking through the doors of the emergency department these days that are unusually high?

Speaker 3: Well, before I answer that, which I will, I will say that the biggest problem we probably face is that people who aren't suffering from COVID have reduced ability to access healthcare. So, you know, are unable [00:19:30] to take care of people who were sick with other diseases, not at all related to COVID just because their capacity is reduced. Our hospitals are full, our emergency departments are overwhelmed. EMS systems can't function well. So, so we are impacting people that don't even have COVID, but, but you know, the COVID pandemic has really been particularly harmful on certain marginalized population. Those who have underlying mental health disorders, behavioral health disorders, you know, it's hard enough for those of us who are, you know, well connected and, and, [00:20:00] uh, you know, have family support and social support to navigate some of the challenges that we see with COVID. But if you have an underlying mental health disorder, it becomes extraordinarily difficult.

Speaker 3: Uh, you know, resources are limited. Many of the relationships they had with providers, psychiatrists, and psychologists, and others have been broken up cause they can't see them anymore. They're they're, you know, fortunately telehealth is available, but telehealth, not in person, many of the group efforts that we used to have, particularly for people with substance use disorders, [00:20:30] uh, sort of don't work as well in a, in a telehealth sort of manner. Um, so, so these things have really been troubling for these populations of patients. Uh, you know, we've seen an increase in the incidents of interpersonal violence and domestic violence, probably due to the stress of being kind of coop you up together, you know, along with the socioeconomic, you know, problems associated with inflation and you know, all [00:21:00] of the things that we deal with on a regular basis, you know, the lack of, of resource availability. Um, and it's been a big challenge. So particularly in a population like we see at university hospital, that tends to be a little bit more, you know, on the, um, socioeconomically deprived scale. Uh, there, there is a lot of suffering that's going on

Speaker 1: With that in mind where we are today, two years in what gives you hope? What makes you feel like we might be seeing the light [00:21:30] at the end of this tunnel. It might be a different world when we get out of it, but you know, what gives you some sense of optimism in terms of where we're headed?

Speaker 3: Well, I, you know, what I commented about before I think the evolution of the virus and seeing what's happening in other parts of the world that have been play with the <inaudible> variant before us, like South Africa and, and Europe, uh, I, I think that the, the, the trend in, in diseases, deaths, hospitalizations has been very promising. I mean, they've peaked and [00:22:00] flattened and are coming down in many parts of

the world. And in fact, here in the, in Northern New Jersey and the new metropolitan area, we've sort of hit what we believe now for several days is a plateau. I mean, I, I hate to jinx us, you know, you never know, but it does look like we sort of flattened a little bit and we're gonna start to go down, hopefully. So I do have hope that this will go away. At least at least this, this surge will go away. We may be living with this disease forever, or at least for the foreseeable future, [00:22:30] it will become an endemic disease. And we have many of them. I mean, nobody really thinks about the flu or the common cold. These diseases were at one point novel and they've just become routine. And you know, those of us that get flu shots understand that the flu is a risky disease and we still have 20 to 40,000 deaths a year in the United States alone. One from the flu. Uh, we seem to sort of

Speaker 1: Accept, but we learn how to live with it.

Speaker 3: Correct. Now clearly 800,000 deaths in two years from COVID is not the same as 20,000 from the flu, [00:23:00] but as those numbers become more normalized. And as we, we develop this approach to herd immunity or improve vaccination strategies and other things with, with COVID, we will, it will become an endemic disease. When, when that happens, it's gonna be up to the CDC and other authorities, public health desire determine these things, but it's gonna go from being a pandemic to an endemic and, and we will just learn to live with it. And I think we're doing that now. I mean, we've really changed our approach to how we take, you know, go to the, go to GA you know, sporting events, [00:23:30] how we send our children to school, how we go on vacation, we will, this will become something that we're able to, to, um, to, to live with, to, to, to kind of it'll become compatible and ingrained in our existence. And I don't think we'll be wearing masks forever. We might, might very well be getting vaccines on a periodic basis forever, or at least again, when I say forever, I mean, in the foreseeable future, uh, that wouldn't really surprise me, but we do with flu and we, we just get used to it. And I, I don't think that's gonna be a big problem, but I do think life will return to [00:24:00] normal.

Speaker 1: Thank you so much for joining us today, Dr. Nelson, and thank you for joining us for this episode of on the pandemic. This is Mary odod executive director of health systems and population health integration for Rutgers university. For more information on how Rutgers is meeting the challenges of the COVID 19 pandemic, please visit [coronavirus dot Rutgers EDU](#).