



Podcast Transcript

COVID Update

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Content warnings: Mentions of death and suicide

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- Board-certified in internal medicine and infectious disease
- Expertise in global health, tropical medicine, parasitology, and virology
- International speaker for organizations such as the University of Glasgow, the University of Minnesota, the Peace Corps, the Foundation for International Medical Relief for Children, Floating Doctors, and Remote Care Education
- Podcast co-host of "This Week in Virology" and "This Week in Parasitism"
- Co-author, *Parasitic Diseases*, 7th edition

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Transcript

Episode 1 – An Update on Where We are After Three Years of SARS-CoV-2 and COVID-19

SOUNDBITE OF MUSIC

LEANA MCGUIRE, HOST: Hello and welcome to a very informative discussion on COVID-19 pandemic. I'm Leana McGuire, your host for this Elite Learning podcast. And our guest is Dr. Daniel Griffin. Dr. Griffin is a physician scientist, board certified in internal medicine and infectious disease with expertise in global health, tropical medicine, parasitology, and virology, including SARS-CoV-2, also known as COVID-19. Welcome, Dr. Griffin!

DR. DANIEL GRIFFIN, GUEST: Oh, thank you so much!

MCGUIRE: I have quite a few questions for you. This is an interesting topic we're always asking questions about. So COVID-19, we're all aware of what it is, having lived and survived 2020 and beyond. Have most of us been exposed at this point?

GRIFFIN: So, we think so. You know, the latest data suggests that over 90% of people have been infected. I know people are out there thinking, "Well, not me!" And, I'm one of those people who thinks, "Not me!" So, there are few people out there left out. We're going to have a big party at the end and get them infected. (Laughter)

But, no, it's estimated that 97% of people in the United States have had some form of immunity, either from prior infection or vaccine. And, a lot of people have, have both. A majority of Americans actually probably have both.

MCGUIRE: Right. Interesting. And what is COVID-related mortality? Where do we stand with that?

GRIFFIN: You know, it's interesting, because it has changed over time certainly (but not, not as great as I think we wish it had). So, you know, early on, the, the case fatality rate was 2%. So, what does that mean? Case fatality is if you have, you know, a bunch of cases. Let's say a thousand people confirmed they've got COVID-19, about 2% of them did not make it. That has dropped down to 1% or lower. So, it has dropped. You know, a lot of us thought it would drop lower. Right? We talk about vaccines out of ... should have dropped at 90%. We talked about effective therapies; that should have dropped it, at least, you know, in half just by themselves. So there still is, unfortunately, a significant case fatality rate out there. We're still seeing three or 400 deaths a day, but we're not at 6000. Oh, my!

MCGUIRE: Right.

GRIFFIN: So, yeah, just to give you know, we're celebrating at a number that we would have been horrified prior to this pandemic.

MCGUIRE: And those mortality rates, would that be predominantly unvaccinated or are you seeing a mix of both?

GRIFFIN: So, it's changed over time. You know, what has happened is, you know, over 90% of the highest risk individuals, right?, have some form of immunity. So, we're now shifting to the point where we're starting to see the majority of deaths actually are in people who are vaccinated. But a couple sort of caveats here. 90% of the deaths are in folks over the age of 65.

MCGUIRE: Mm hmm.

GRIFFIN: Among those, it's predominantly people that have multiple medical problems. The other side, though, to point out, is 10% of those deaths are people under 65.

MCGUIRE: Wow!

GRIFFIN: So, we've seen, you know, hundreds of children succumb to this virus, most of those deaths during Omicron. So, we still continue to take this seriously. It's still a significant threat, still seeing lots of people dying.

Vaccines do a bunch! But as we'll talk a little bit later, that's not where it stops. You wanna, you want to just not rely on vaccines alone, but you want to add on to that.

MCGUIRE: Okay, great. Now, I'd like to talk to you about testing as well, because we keep hearing, I mean, I keep hearing, I'm sure others have as well, where I tested negative, but I'm sure I had it. (Laughter) Are home tests reliable or ...?

GRIFFIN: ... So, they're reliable to a degree.

MCGUIRE: Okay.

GRIFFIN: And the "to a degree" depends, you know, when used properly. You know, so one thing is, nothing's 100%. And, the rapid tests are not 100%. So that's just important to start with. The other is timing matters, and repetition matters. So, you know, if you're just starting to get symptoms, you know, we don't know if this is because of prior immunity.

We don't know if this is because of the different variants. But some people will be, test negative during that first day and not start to test positive until the next day. And some folks, actually it's the following day. So, most of the home tests now have a recommendation in there to do a test the next day. ...so not that first day of symptoms but the second day. ... and if that's negative, to actually go on and get another test. ... still higher sensitivity with those PCR tests, you know, and if you're an individual who's at high risk, because timing matters, you know, you may not just stop with those rapid home tests. You may want to actually look at getting a second test to confirm it.

MCGUIRE: Got it! And while you're waiting a day or two to test, I'm assuming isolation would be a good idea if you're having those symptoms.

GRIFFIN: Yeah, if, if you might have COVID and you're waiting to find out, you really don't want to be out there spreading it to others.

MCGUIRE: Right! Okay, great. Now, what about ventilation? Does ventilation make a difference. I've heard that it does. ... if you have good ventilation in your home, or is that just a wives' tale?

GRIFFIN: Yes, it really does. Ventilation is huge! And, I really think we, we haven't used the resources. We haven't used the tools. You know, this is a dilutional thing. You know, when you're within 3 to 6 feet, okay?, you're, you're within sort of the highest risk zone. But once you get outside that zone, if you're in a poorly ventilated space and you're there long enough, if a person with COVID is there long enough, we're still seeing infections.

So, ventilation is important. I mean, the best ventilation is you're outside in the great outdoors with a nice airflow. But if you're indoors, particularly those suburban homes, those apartments: cracking the windows. If you have, you know, AC or heat, leave the fan on. Don't turn it, don't turn it to auto and have it off and on ... particularly when you have folks in the house. So, ventilation has been shown to significantly reduce the risks.

MCGUIRE: Interesting! That brings up another question ... is we often see people ... I hear people criticizing those who are out walking their dog with a mask on. Do you feel that that's a necessary precaution when outside?

GRIFFIN: So, one thing we've learned, and I think this, you know, is scaring the wrong people issue ... is that, you know, if you're out and you're by yourself and you're walking the dog, your risk of getting COVID is pretty much nil. You know, there are crazy viruses that can blow across the English Channel. SARS-CoV-2 is not one of those. So no, if you're out and you're walking your dog, if you are driving by yourself in your car, you certainly don't need an N95 on. I'm not sure there's much utility at all to masking in those situations.

MCGUIRE: Okay.

GRIFFIN: You know, I think we should start following the science. You know, take a deep breath. And, if you are out walking the dog, enjoy that.

MCGUIRE: Yeah, there you go! And, if you're criticizing someone for walking their dog with their mask on, stop. (Laughter)

GRIFFIN: Yeah, I think that's the other Yeah, let's, let's not mask shame people.

MCGUIRE: Yes, exactly!

GRIFFIN: For yeah, for a lot of us, this has been traumatic, particularly if it's a person with, you know, immunocompromise. This is, still continues to be, scary. And now maybe it's a little bit scarier now that we're losing our monoclonals. So, you know, if someone is wearing a mask and they're comfortable doing that I have to say, when I was in Japan, a lot of the young ladies would wear masks just because they didn't want to do their face. They would tell me. (Laughter) So maybe that's what's going on.

MCGUIRE: Did save a lot on lipstick, there is that! (Laughter) We'll talk about the monoclonals in a little bit ... that's an interesting discussion. Talking about masks ... when they started lifting the mask mandate, were there increased cases? What was the result of that in your findings?

GRIFFIN: Yes, that was actually one of the areas where we got, I'll say, good data. There was a state where it was lifted incrementally. So certain schools, they continue to just keep the masks. Other schools, they would reduce the mask use, basically say no more mandates. And we clearly saw an increase in cases in the schools where the masks were taken off.

Um, you know, and we'll try to put this in a little bit of perspective. So, you know, masks, particularly if you have COVID, whether you're asymptomatic or symptomatic and you're wearing the mask, there's a great benefit for everyone else for that source control. Also, there is some benefit to wearing a mask yourself if you're in a setting where that other person has, has COVID.

So, what we saw in those schools was that the masks would come off and then the schools where the masks would come off, you would see an increase in cases and actually gave us sort of a count of how many cases were sort of associated with the lifting of those masks. But the other side is that we now have (and we'll keep discussing this), we now have highly effective vaccines. We now have a population where 97% of the population has some form of immunity. You know, and I don't want to forget about the immunocompromised who are in a tough situation at the moment. We have effective medications. We're also stopping using things that were harmful, right? I mean, we were just looking at, I was looking at a paper today where early use of hydroxychloroquine may have actually resulted in more people dying, while early use of steroids actually caused some people to not survive who would have survived if they had been left alone.

So, you know, vaccines, highly effective therapies, getting rid of things that are harmful. So, COVID is here to stay. So, part of the mask discussion is, is what are we going to be doing going forward? Which measures are more or less acceptable in these different contexts?

MCGUIRE: Should we be returning to masking?

GRIFFIN: You know, I think on an individual level. I've never been a huge fan of mandates.

MCGUIRE: Sure!

GRIFFIN: You know, I think it created a lot of tension. I usually, usually on the side of education, explain people what the benefits and risks are. And masks went sort of back and forth. So if, as we discussed, you're a person who's a high-risk individual, if you're going to the supermarket and for you, you know, getting any respiratory virus, including SARS-CoV-2, COVID-19, is going to be a major risk, there's really no downside if you're comfortable with wearing a mask in the supermarket, wearing a mask in a crowded indoor setting.

Recently, my daughters went to a Broadway show in New York City, and they wore masks (a very crowded, very dense, not necessarily the best ventilation ... so, the situations when it makes sense to wear a mask). But then the other side, we talked about someone out walking their dog. You really don't need to do that.

MCGUIRE: Okay.

GRIFFIN: So, I think it makes sense for people to understand the science and when it may or may not make sense.

MCGUIRE: So, on a plane, for example,

GRIFFIN: You know, so I do wear a plane, I do wear a mask on a plane. And the highest, you know, the highest risk is, is in that, you know, getting onto the plane. Right? So, you're all crowded together. You're in the aisles. Once you're in your seat, it's the people around you. So, you know, lower risk. So, if you if you're going to wear a mask, you know, wear it the whole time, that's great. If you're only going to wear it part of the time, it's really the getting on the plane, getting off the plane that are the most important.

MCGUIRE: Got it! Excellent! So, if you've been exposed and have tested positive, can you clarify for us how long you should isolate and why?

GRIFFIN: Yeah, so this, this has been a challenge and controversial, but I'm sort of amazed, because we have a tremendous amount of data of science here. And we have, you know, pretty soon three years of science here. Forget about which variant, just in general, you are the most contagious during the first five days, right? So, it starts a little bit before symptom onset, and it's really that five days from symptom onset that we see 90% of the transmission, not a hundred, but 85, 95, 90%. During the 6 to 10 days, there is some degree of

transmission. And that's when we talk about if you're going to go back to work, if you've got it, that's the wearing the mask ... that's not eating in communal areas. So, really the clock in most cases is the most reliable, the calendar's the most reliable. I know there's a lot of discussion about testing. You know, and should I test? And, does that tell me? We try to correlate that with culture positivity and negativity.

You know, if it's day nine, and you get a positive antigen test, it's 50/50 that you're going to be able to culture any virus. And if you get a negative antigen test, it's also 50/50. So really, I don't encourage the testing as a way to find out. It's really the clock. But then again, if you're someone who's immunocompromised, if you're someone who had a really severe case of COVID, then there are some situations where we may see infectiousness beyond that ten days.

MCGUIRE: Interesting! Okay. There's also been a lot of division on the topic. So, let's talk vaccines. (Laughter) ... effectiveness, boosters, etc.

GRIFFIN: Yeah. So, okay, so vaccines, first two or three doses Really, I think that, you know, very clear, compelling data. You know, the data, we were surprised, you know, 90% reduction in people ending up in hospital, 90% reduction in severe disease. But then, boosters, particularly the bivalent boosters this fall. And, there were two sides to this. One was, are the new boosters any better than the old boosters?

You know, and that was a bit of a controversy, you know, slightly higher antibody levels. What does that mean? We're not really sure. Targeting BA.4, BA.5 which are really not around, maybe 10% of the So, targeting a variant that's already gone. That was sort of what a lot of people were saying. You're going to be chasing your tail. By the time we hit December, January, those variants won't even be around.

So, what are you doing? So, that was one side. The other was, "What's the real-world data now that we have it on how well do those boosters work?" You know? And, it's just listening to the MMWR report. They have a podcast today. They're saying significant reduction. Well, what is that significant reduction? About 20%. So really getting a little bit more with the boosters, still encouraging those boosters, but not saying everyone has to get them. You know, if you're a high-risk individual and you can reduce your risk by 20%, then, boy, that's certainly worth doing.

MCGUIRE: Yeah.

GRIFFIN: ... but if your risk of severe disease is already zero, you know, a 20% reduction in zero is still zero. So

MCGUIRE: Good point! Are we looking at a future of annual boosters? Is this going to be like a flu shot, or is it going to be tailored to the current variant at the time?

GRIFFIN: So, I think we're going to learn in the next few months here, and I think the next few months are going to be critical. So, there's two ideas on, on how, the, how the vaccines are working. So, one is the "being antibody B-cell dependent." And we have these new variants now that are basically resistant to the, to the vaccine-induced and the monoclonal antibodies.

So, is the vaccine protection against severe disease really T-cell-based? And the T-cell-based is much more durable, much more reliable, much harder to get through. So, in the next couple months, we're going to see, "Do we need to keep boosting those antibodies? Or, once we get that memory T-cell, are we going to have the protection we want?"

MCGUIRE: Hmm.

GRIFFIN: So, a lot of people have decided they can tell the future. I don't think we quite have the science yet. So, science will tell us.

MCGUIRE: Interesting! Now, let's talk about, with the actual phases of infection, there's hypoxic and non-hypoxic, etc. Can you go through that for us and talk, talk about those?

GRIFFIN: Sure! I think this, this is really important about the timing of COVID-19 and understanding the timing is important as an individual, what to watch out for, but it's also really important when it comes to treatment. So, the first week is this viral replication, non-hypoxic phase. It's when you feel crummy. I've got a fever. I've got a headache. Everything hurts. You feel sick, like you feel like you've got a virus. And really the only way to tell whether it's COVID or not is to do a test. That's the time when a lot of our frontline antivirals are effective. So that would be Paxlovid™ ([nirmatrelvir] [ritonavir]) as our number one choice. Then, in some situations, we have access to IV remdesivir during that time. We've lost our monoclonals. We still, in some cases have molnupiravir.

During that first week when you've been vaccinated, maybe you've had prior infection, when your immune system is trying to fight off the virus, this is not the time to turn it off with steroids. And we've seen that if you do that, if you treat a viral infection, SARS-CoV-2, COVID-19 with steroids, you actually increase your chance (or if you're the provider, you're increasing that patient's chance) of progressing to week two when they get this early inflammatory hypoxic phase.

MCGUIRE: Okay.

GRIFFIN: So week 2, starting, you know, about day eight, nine, ten (so that second week), this is when we see that cytokine storm (that pulmonary phase) when the virus has started to go down. There still is some detectable virus, particularly with PCR. And, this is when you start having, in some cases, trouble breathing. This is when your oxygen saturations might drop below 90, 94%. You've missed your window of opportunity for Paxlovid™ ([nirmatrelvir] [ritonavir]). There might still be some benefit for remdesivir if you're still within the early part of that second week. This is when we start looking at immune modulation with things like steroids if that drops below 94%.

So really, timing is really critical. And, you know, I tell a lot of patients, "Hey, it's first week." Let's say we treated them. It's week two when I say, "Get one of those pulse oximeters, start checking your oxygen levels, I need you to call me if that drops below that magic 94%." ... because we may want to step in.

MCGUIRE: Is Paxlovid™ ([nirmatrelvir] [ritonavir]) appropriate for everyone in that early phase?

GRIFFIN: So no, it isn't. It isn't. The science would not say it's appropriate for everyone. You know, it was studied to do what? Prevent progression to severe disease. So, this gets back to this, "Well, if your, your risk of progression to disease is zero, well what are we doing with Paxlovid™" ([nirmatrelvir] [ritonavir])?

MCGUIRE: Right. Yeah. Okay.

GRIFFIN: Just sort of to go through ... so if you're a high-risk individual, maybe you're over the age of 65, maybe you're carrying too much weight (say that nicely) (smiling), maybe you've got multiple medical problems There's a list of different factors that might put someone at a non-zero risk of progressing, ending up in the hospital. So Paxlovid™ ([nirmatrelvir] [ritonavir]) can reduce that. Early studies, pretty impressive, 88, 89% in the unvaccinated cohort they looked at. The real world data, we're getting about a 50% reduction, a little more than a 50% reduction, in ending up in hospital, ending up in that severe disease group.

GRIFFIN: The other thing we don't know (and we don't know), and I think it's important to say. Does it prevent long COVID ...

MCGUIRE: Hmm.

GRIFFIN: ... which is another severe disease manifestation? Some early data encouraging, suggestive, but we don't know. So, the current indication, the current recommendation is not for everyone. It's for people at risk of progression.

MCGUIRE: Same case with remdesivir, I'm assuming?

GRIFFIN: Yeah, it's the same. So, our therapies are Paxlovid™ ([nirmatrelvir] [ritonavir]), our remdesivir, our molnupiravir, not for everyone. It's for individuals who have a risk of progression. And we're hoping to reduce that. If you were, you know, 25, if you're healthy, if you're ideal weight, if you're active, no medical problems, it's not clear that we're going to do anything helpful.

MCGUIRE: Okay. And you mentioned steroids is something that should be avoided in that early phase. Anything else that we should avoid?

GRIFFIN: Yeah, I mean, the first week, remember, this is a virus. So, whenever I read these articles about it, we're having antibiotic shortages because of all the respiratory viruses. I'm sort of shocked. "What are, what are people doing treating viruses with antibacterial agents?" Yeah, there's no role. We've looked at, you know, those Z packs, which people say, oh, it's anti-inflammatory. No, it is, it is not. And if it was, that would be a bad thing. So, no antibiotics during that first that first week, a lot of other things out there that hopefully have been dispelled (won't give them any air). But there's a lot of unproven therapies out there that are still being encouraged. But the science does not support them. So let's, let's not do things that are harmful, things that are unproven. Let's not lose the opportunity to do things that can make a difference.

MCGUIRE: Excellent! So, variants. We've lived through a few of them now, including Omicron. In fact, we recently heard they're keeping their eye on a variant called XBB right now. You can probably talk more about that. What do we need to know about current and future variants?

GRIFFIN: Yeah, so. XBB there's, there's a good and bad side to XBB. ... mostly a bad side. We'll start with the bad side. (Laughter) So the bad side to the newest variants that we're seeing is, is they have actually been really doing well outcompeting, you know, fitness wise, the other variants. You know, starting to spread in India, starting to spread in parts of Asia like Singapore. We're actually already seeing them starting to spread here in the United States, particularly the XBB and the XBB group are resistant to neutralization by all of our monoclonals. They also tend to be highly resistant to sera from people that were previously infected and people that were vaccinated and even people that had both.

MCGUIRE: Wow!

GRIFFIN: So, this is really antibody evasive, and this is gonna Well, what's the good side to this? How can there be any good side?

MCGUIRE: Right?

GRIFFIN: So, the only potential good side that I see is this is going to answer that question. Do we need to keep boosting? Do we need to keep relying on antibodies? How much can our T-cells do to protect us? So that's going to actually inform us from a science point of view. If it turns out we really need those antibodies, well, then we've got to update our vaccines. We've got to update our neutralizing monoclonal antibody treatments.

MCGUIRE: When you say that, that we need to update them, that's not an overnight process, correct?

GRIFFIN: No, it's really not. It takes, you know. Well, but it does. It takes weeks, not months.

MCGUIRE: Well, that's good.

GRIFFIN: Yeah.

MCGUIRE: And then they have to get passed though at certain point, FDA, that process?

GRIFFIN: The regulatory part might take longer than the actual producing them, right?

MCGUIRE: Sure.

GRIFFIN: We have great systems in place at a lot of labs where they can do these pseudovirus neutralization and also a number of these high BSL-3 level labs where they can do real virus neutralization, test the antibodies, see if they work. ... because all the modeling you do, you really need to actually test and see if they work. Once you show that they work, once you show they can neutralize, then wonderful hurdles of getting through our regulatory agencies to hopefully get them out.

MCGUIRE: Yeah, I mean, it's fascinating. There is quite, there's actually a fair number of cases, aren't there, in the U.S.?

GRIFFIN: We are seeing lots and lots of cases. Yeah. And I think the, you know, the one hard number that, you know, is, is easy to put your finger on is deaths. You're looking at about 400 deaths a day. We're looking at, you know, almost 3000 deaths a week. That's just enormous! Hospitalization rates are going up. So, yeah, it's, there's a lot of virus out there.

MCGUIRE: Yeah. And those 3000 a week, are they specific to XBB or is this any of the previous variants?

GRIFFIN: Yeah. At this yeah. At this point, XBB is just coming on the scene in the United States.

MCGUIRE: Okay.

GRIFFIN: It's still less than 10%. So, we'll be seeing that, you know, 20%, 40%. That's going to be probably by January, really moving in as a dominant.

MCGUIRE: Okay. So, some people think they can see into the future. (Laughter)

GRIFFIN: Yogi Berra says that's the hardest thing to look into!

MCGUIRE: You got to love that guy! Yeah! So are we Do you think that potentially we're looking at another, you know, closing borders, isolation, shut down potential? Not to you know ... I'm not a fan of anticipating or building fear, but could that be a reality based on the new variants and the way they attack?

GRIFFIN: Yeah, I mean, from, from the science standpoint, from, you know, here we are. It's the time of year when a lot of people are together, indoors. You know, I would be surprised if we did not see an increased number in cases and increased number in deaths. I do not think we're going to get back up to 6000.

I actually am one of the folks in the school of, "I think our T-cells are actually going to come to save us all." You know, I also don't know if there's much of a political will or even if it really ever made a lot of sense, a lot of these border closures. So hopefully realizing that it, it's not helpful. It's harmful.

You know, let's do things that we've learned to make a difference. So yeah, I mean, I think as we get into this, a lot of things we've learned. So, we've learned about the importance of vaccines and having immunity. I think a lot of people have gotten it either way, voluntarily with the needle or by breathing. The other is we now have,

you know, understanding about ventilation. Outdoors is safer than indoors. You know, people are a little bit more intolerant to folks showing up for an event, coughing and sneezing ... and obviously sick.

MCGUIRE: Yes!

GRIFFIN: We do have testing. So those that want to make a difference can actually prevent themselves from showing up during that asymptomatic period. I think we've learned a lot. So, yes, COVID is here to stay. It's going to continue to impact us. But we're not the, where we were, you know, in the early days of 2020.

MCGUIRE: Thankfully, thankfully. This is a fascinating field. You must, I mean, as, as dreadful as a lot of it's been, there must be just a lot of, just so much education on a regular basis and information that's coming in to keep track of from your perspective. It's got to be exciting on one level. I hate to say that as a, you know what I mean, but it's, it's an interesting time for, for your practice.

GRIFFIN: No, it ... yeah, it continues to be a fascinating time for infectious disease. And my hope is really that we, you know, we continue, and we have, we've learned a tremendous amount. My hope is we continue to learn a tremendous amount, not just about COVID, but also learning about other respiratory pathogens, learning about RSV, learning about flu, learning about, you know, all these rhino, enteroviruses that were circulating. ... also learning about all these post-infection syndromes, right?, that people have been troubled with.

MCGUIRE: Sure.

GRIFFIN: I think we're getting better insights into the chronic fatigue, ME/CFS. And to people with post-Lyme, you know, and while a lot of people are struggling with post-COVID conditions, you know, we're learning more and more about what's going on. So, I am hoping, I am enjoying that aspect. ... just the tremendous amount of knowledge and the idea that that's going to lead to, you know, people benefiting from all this knowledge.

MCGUIRE: It's, it's been an interesting time when I think back on the naivety of most, most people over the last several decades, it's really brought forward the fact that we are vulnerable to such a degree. Do you see a future where other pandemics may raise their ugly heads other than COVID at some point?

GRIFFIN: Yeah, I mean, you know, to be realistic, right, we were anticipating a pandemic. We anticipated another pandemic. It's you know, it's kind of a question for human You know, how often did this happen, and what is the agent that drives it, right? We were expecting and preparing for a flu pandemic, and we got a coronavirus pandemic. And getting a coronavirus pandemic does in no way move the influenza pandemic possibility off the table.

MCGUIRE: Sure.

GRIFFIN: We need, you know, we need more effective therapies for flu. You know, we probably need home testing for flu, right? So, we can use a lot of what we've learned here and the advantages, right?, with flu. You know, if there is a flu pandemic or should I say when there's a flu pandemic is that most of the transmission is when symptomatic. So that's going to help us to some degree. We don't have as much asymptomatic transmission.

Yeah. So, you know, most of us are expecting and I don't think "sky falling" just sort of the deep breath of, yes, this is our reality. We live in a world, none of us are immortal. There are viruses out there, and hopefully we've learned a lot. So, we don't do things like close borders when that's not useful. You know, do a lot of stuff that's theater really, you know? What is the science? What can we do to keep ourselves safe?

MCGUIRE: Right. ... and just the pure mobility of mankind now in travel, it's, it's gonna move around.

GRIFFIN: Yeah. No, I mean, I think that's the challenge. Within 24 hours, you can get from really any spot on the planet to another. So yeah, and that's not going to change. And the other, you know, and this is just a reality, human beings like being around other human beings.

MCGUIRE: They do. They just do. And yeah, it was tough for a couple of years when we couldn't be. That was, it was a real challenge for a lot of folks. Okay. Well, Dr. Griffin, knowledge is power, and we as health professionals are more than grateful for your expertise today. Thank you for taking the time to inform and educate us and our listeners, and thank you for listening today.

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We've talked about the significance of timing for testing, the impacts of ventilation and masking, isolation and vaccines, and a little bit about variants. So, we would like to continue the conversation in episode two. Please join us for the rest of our podcast in the next episode. This is Leana McGuire for Elite Learning by Colibri Healthcare.

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Episode 2 – Interprofessional Communication and Interpersonal Relationships in Healthcare Related to COVID-19 and Beyond

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MCGUIRE: Hello and welcome to our discussion on COVID-19, the pandemic. I'm Leana McGuire, your host for this Elite Learning podcast. And our guest is Dr. Daniel Griffin. We are back with part two of this podcast series. Dr. Griffin is a physician scientist, board certified in internal medicine and infectious disease with expertise in global health, tropical medicine, parasitology, and virology, including SARS-CoV-2, also known as COVID-19. Welcome back, Dr. Griffin.

GRIFFIN: Oh, thank you. My pleasure.

MCGUIRE: What we'd like to talk about on this second half of this podcast, there's part two, is interpersonal relationships within healthcare. So people are tired, they're burnt out from COVID. It's been a really tough couple years. We want to talk about the best way to improve or maintain good communication interprofessionally so that we get the best outcomes for our patients given current situations.

Let's talk about the toll it's taken on the healthcare profession and those in it. I'd like to talk about interprofessional responsibilities, how looking after patients in this kind of environment, how do we have the best communication between, say, even physicians and nurses to talk about situations? So, can you talk to us about that or even share some examples?

GRIFFIN: Sure. I mean, this is a great area to actually share stories and then couch the discussion in that context. So, I'll bring everyone back to the early days of the pandemic. So here it is, March of 2020. You know, here in New York, where we're being hit, multiple deaths per day, I think we were up at 2000 deaths per day, just right in our immediate tri-state area.

You know, all of us working these incredibly long hours, physicians, nurses, respiratory assistants, really everyone, even janitorial staff. Right? It's a full team effort. And it was tough, you know, as, as clinicians, particularly as infectious disease consultants, we really had a large number of people to see. I mean, I, at my hospital, there were two of us, and we basically said every single patient that comes in with COVID, we will make sure we see them and provide a consultation, but you can't see every single person every day.

So things were coming up, and it really was critical to have a really positive working relationship with all of my colleagues. And I would say particularly the nurses. I mean, the nurses were there, they were at the bedside, and they would let me know, "Hey, Dr. Griffin, you know, (such and such) medicine" (we won't mention it). "You know, this patient's on a non-rebreather. And every time I give them this medicine, they're vomiting into the facemask. Do they really need to be on this?" And I would look and say, "No." You know, I can't imagine it's any medicine that's going to provide a benefit, you know, if it ends up inhaled into their lungs. So really from the early days of the pandemic, it became really critical to have really good open relationships and communication with particularly the nurses in this example.

But really all the staff, you know, it was hard at times. I have to admit we're all tired, it was traumatic. We're seeing our patients die. We're all kind of in a, you know, not post-traumatic stress, but sort of in the middle of stress disorder, you know, and trying to continue to be patient, continue to be collegial, always send the message that you can reach out to me at any time that you need to.

Now, I'll move us into kind of, you know, more of the present day and that communication. And, you know, just, just last night, you know, your patient was getting ready to be discharged. Now they're starting to cough. Now they've got a fever. You know, having that nurse, you know, here's my cell number. You call me at 11:00 at night.

And, you know, we're seeing, unfortunately, you know, patients might come in without a viral disease, and now they've developed a fever, and now they've, they've acquired an infection despite sort of the best measures. You know, a lot of times you find out it's that husband that's been coming in, you know, and again, the nurse might be the one who says, "You know what, their husband was kind of coughing and not doing well the last couple of days." So, you know, we learn a tremendous amount. We provide better care when we have those lines of communication.

MCGUIRE: And are you finding that they are open for the most part in your experience? I mean, obviously, it's, I mean, obviously, it sounds like it is with you as a physician, but are you seeing that overall as kind of a, with your pulse on the situation? Is it improving or are things still pretty tough?

GRIFFIN: Yeah, it, you know, unfortunate, as you sort of suggest, it's not that good everywhere.

MCGUIRE: Sure.

GRIFFIN: Right? I mean a lot of large particularly academic centers, you know, new staff coming and going You need to develop those relationships, and that, that can be one of the downsides of being at one of these large, um, mega centers. You know if you know the person by name, if they've got your cell phone number, and you've got a relationship of trust there, I think it actually provides better care across the board.

I was listening to a, a podcast one of my colleagues, you know, puts up there. You know, they're talking about sputum and how you should talk to the respiratory therapist. I'm like, "Don't talk to the respiratory therapist. Go in the room with the respiratory therapist, look at the sputum." You know? That's the kind of relationship I think that creates better care. You know? Then you know what's going on. Everyone knows what's going on. The patient knows what's going on. So, yeah, it, it ... with more communication, it's better.

And you know, the early days of the pandemic, it was tough. A lot of the consultations were doing, were being done remotely. We were limiting the number of people that were going into the room. So maybe, you know, one person was physically going into the room. And, that was the physical exam. But that's really tough, because, you know, communication with the patient, communication with the family, communication with, with

nursing, communication with respiratory therapists, all the other people involved. So really, really challenges ... and those challenges continue.

And I think, unfortunately, Leana, as you brought up, is it really better? You know, a lot of, a lot of us ... this has been a tough last few years on both sides. So, it's getting, getting hard. And I'm not sure that communication is great in all of our centers.

MCGUIRE: Right, it would certainly improve the situation of exodus! We do have people leaving the profession. I think that increased communication ... and empathy. Can you speak to us about empathy?

GRIFFIN: Yeah, I think it's important, you know, just because you maybe as a provider are going through a tough time, just realize how hard it is for a nurse who's been at the bedside when that patient, you know, that, that patient passes. And they, they've been there for days holding their hand, taking care of them, changing them. Just, you know, I think it's important we are losing a lot of people from healthcare. And part of it is this, you know, it's tough, and I don't think we are, you know, they're enough for each other.

MCGUIRE: Yeah, that, that's true. And a lot of, a lot of folks within healthcare lost friends who they worked with. You know, there's plenty of situations in the early days just pre, pre, I think it was a month before the vaccine came out. Someone I had worked with in ICU had passed away. And the folks that worked in that ICU had looked after him. So that was, you know, you hear stories about that a lot. That's a really, really tough thing to have to go through and come back to work the next day. So

GRIFFIN: Yeah, I mean, we yeah, I mean, speak directly to that. We did lose a lot of our colleagues during that first year, and it was horrible.

MCGUIRE: It's awful!

GRIFFIN: You know, we didn't have vaccines. We didn't know what we were doing. You know, one of my colleagues, young pregnant woman, actually did not survive, and it's just horrible. Right? You know, and so it's, it's you know, and some would survive COVID and then just the stress You know? One of my colleagues actually ended up committing suicide after surviving COVID. I mean, how, how horrible.

MCGUIRE: Yeah.

GRIFFIN: So, yeah, the, the amount of, you know, I guess mental challenge here. And then unfortunately, while we're trying to take care of these folks, this tremendous, hostile, anti-science movement.

MCGUIRE: Oh, yes.

GRIFFIN: You know, where, you know, here you are doing everything you can to take care of folks. And a lot of us are being targeted. You know, death threats, absurdities. So, yeah, a lot of people have really just said, "Enough." You know, they've either left the profession, they've shut down social media, they've just stopped talking and sharing the information because of the hostility. Unfortunately, there's a lot of money on the other side, and people are willing to do a lot of stuff to protect that, that revenue stream. And so yeah, it's been really tough on some of us.

MCGUIRE: So yeah, it went from applause to hostility in a very short period of time. So that's, that's really hard to take. So advice for, we have obviously a lot of nurses listening to this. What can nurses do to improve that interprofessional communication? If they're having an issue with someone or a physician, what do you think would be the best course of action for them to improve that?

GRIFFIN: Yeah, I mean, it's a challenge. I mean, hopefully at each medical center, there's at least one clinician who they can talk to and maybe share. You know, "Hey, you know, so-and-so has been difficult and then maybe that person can, can help them. It doesn't help to confront someone who's hostile and tell them that they're hostile. I don't think that makes it any better! (Laughter)

MCGUIRE: No.

GRIFFIN: But no, like talk to your colleagues. Sort of find out, you know, like, what are you doing? And, you know, and even just sometimes sharing that, you know, so-and-so is a jerk, you know, can sort of help you! You feel like, okay, it's not just me.

MCGUIRE: Yes!

GRIFFIN: You know, because ...

MCGUIRE: Venting! Venting is good.

GRIFFIN: I mean, you know. Yeah. I mean, people that go into nursing, my, my oldest daughter's going, going into nursing. It's a tremendous profession. You don't go into it for fame. You're definitely not there for the money. You're there to make a difference. And I think that, you know, if you're not treated well, then something's wrong with the person who's not treating you well.

MCGUIRE: Right. Right. Is it beneficial, do you think, to go to a medical director, or would it be better course of action to go to a nurse manager if there's an issue?

GRIFFIN: Yeah. So, you know, talk to your colleagues. Talk to your nurse manager. I mean, nurse managers have just many, many years of experience and really some of them are just tremendous and really can help provide you some guidance on, you know, what should you do, what's the next step?

MCGUIRE: It was interesting when you said, "Don't tell somebody who's hostile that they're hostile." The other thing is, is if someone's upset ...

GRIFFIN: (Laughter) You're being hostile!"

MCGUIRE: ... telling them to calm down, never works! That's the other thing. Right? I always think when someone, when someone's upset, and ... "Calm down!" Oh, yeah, that's working. (Joking/laughter)

GRIFFIN: Yeah.

MCGUIRE: That's good

GRIFFIN: Yeah. But don't, but don't just be quiet. Don't just think it. Actually talk to your colleagues, talk to your supervisor. You know, if there's a problem, no one should be treated poorly in the workplace.

MCGUIRE: Right. I think another thing, and I think this goes for all, for everyone in that interprofessional relationship, is that if you do lose your temper, everybody involved, that it's okay to 'fess up about that, own it, apologize afterwards and, and move forward, because I think that shows a lot of maturity and empathy as well. Excellent. So, the day to day and you're still seeing it with issues across the board a little bit, right?

GRIFFIN: Yeah. I mean, unfortunately, our COVID ward is, is full. At the hospital where I work, I continue to see acute COVID and lots of post-COVID in my, in my outpatient practice. Yeah, it's here. Our urgent cares are still seeing lots and lots of cases. It's not going anywhere. And if anything, we're at the highest level of hospitalized

folks with COVID since, well, September. So we're climbing again. Deaths are climbing again. We're already starting to see that post-Thanksgiving surge.

MCGUIRE: When we're talking about the interprofessional relationships, I know you travel a lot. Any thoughts on different, different countries or cultures or aspects of that? Are we all kind of similar in our, in that where we're at post, I don't want to say post-COVID, because we're not post-COVID, but you know what I mean? How do we compare?

GRIFFIN: Yeah, well, tomorrow, the day after we record this, probably, you know, before or after people are listening. But I'm heading to Uganda for, for most of December. And there I'll be, you know, initially the first part of the trip, I'll be working in a remote clinic, eastern Uganda, Kenyan border, where almost all the care is provided by, by nurses, not by physicians. So once a week there's a physician there. Periodically, there'll be someone like myself who goes. A lot of it is, is education and working with the nurses, because they're going to be the ones taking care of the patients when we're gone. They're going to be the ones taking care of the patients all those days of the week when there isn't a local provider around.

So they're, it's a, it's a different dynamic. I've said eastern Uganda. It's 15 different languages spoken. I don't speak most of them. The nurses do, which is amazing. So they're, it's a much different relationship there. There are fewer and fewer physicians in many parts of the world. So, there's much more reliance on nurses, much more required communication and education so that they can, they can function in those areas.

So, it is different in different parts of the world. I was in Panama about six months back, working in some of the remote locations. I dragged my oldest daughter along with us! And there again, very few physicians ... and so a lot of nurse practitioners, a lot of advanced practice nurses helping with the care. So, areas where it's really critical that there's good communications

MCGUIRE: That's, that's really interesting! That'd be quite the education for your older, oldest daughter if she's in nursing school, so that's, that's impressive. Wow, was she exposed to this? Was she in school when, at 2020, or has this been since?

GRIFFIN: Yes. So, she actually in, you know, March of 2020 was off at college, and we brought her home a little bit earlier before ...

MCGUIRE: Yeah.

(crosstalk)

GRIFFIN: ... stay at home. So that was the one bonus for me is I had my daughter, you know, back from college. It was. Yeah. So she, she experienced that. She's actually in her senior year of university now and hopefully will be starting nursing school here in the New York area next year.

MCGUIRE: Fantastic! You must be very proud. I was actually, as were several other nurses that I've spoken to, concerned that people would not go into the profession of nursing after COVID. But it's actually has been the reverse. Is that correct? Are there more people going into it or medicine?

GRIFFIN: You know ... yeah, it's interesting. So, there are certain areas, right? So, there are certain people going, more people interested in nursing, which is great. We saw a little bit of a surge in providers going into infectious disease that seems to be keeling off. Let's see what happens there. But no, you know, I think there's a lot of people out there that really want to make a difference.

And I know that for a lot of people, it's just, you know, they've said, "Boy, this was just too much the last three, three years," and a lot of folks have fled the profession. I think fled is the right word. But no, there's a lot of, there's a lot of idealistic, excited people coming into the area. So very, very positive about the future.

MCGUIRE: That's great. I'm glad to hear that. Excellent. And I think that I'm hoping that those entering the profession now will be more empowered to have those conversations and, and, and follow their gut. Do you think there's a lot to be said about that? ... when you're when you think you should say something to someone but you're not sure?

GRIFFIN: Oh, I think, I think our younger generation is, is well, well, well versed in speaking up that

MCGUIRE: That's a good thing! We think ...!

GRIFFIN: You know, I think it's positive. You know, I sort of joke, you know, that, that be respectful for your elders. Well, don't be respectful to your elders if they're not being respectful to you.

MCGUIRE: Yes, yeah, yeah.

GRIFFIN: And I think our younger generation has learned that if they're not being treated well, that they should say something.

MCGUIRE: And yeah, and I think they are ... that is interesting. You know, when I think about my mother was a nurse as well and a generation where she got out of her chair when a physician walked in the room. It was a ... you were very careful what you said. And I think it's really important to feel empowered to be able to, to say if you have questions or concerns. I think sometimes people are afraid that they're going to say something wrong or look stupid. Thoughts on that?

GRIFFIN: Yeah. Yeah.

MCGUIRE: Just, you know, take the chance!

GRIFFIN: We are on the same page on that.

MCGUIRE: Yeah, absolutely. Absolutely.

GRIFFIN: Yeah.

MCGUIRE: And if someone gets impatient with you, so be it. That's fine. At least you've, you've done what you need to do.

GRIFFIN: Yeah.

MCGUIRE: So, that interprofessional relationship is so important. Any other thoughts on those relationships?

GRIFFIN: No. I mean, I think as we've talked, very optimistic about the future. I think that this younger generation, you know, has learned that, you know, they should be respected in the workplace, there should be less of a hierarchy. It actually results in better, better care. And so, yeah, I'm very, very positive about our future. I'm looking forward to it. And hopefully we really learned a lot over these last three years and will heal from our wounds and will come out, you know, all better.

MCGUIRE: I would like to circle back to something that you mentioned in part one of this podcast series, and we have a few minutes, is you said we knew there was going to be a pandemic coming. Can you elaborate on that? Is it just because of historical data, or how did, how did those in the know ...? (Laughter)

GRIFFIN: Well, we, “we” (say we), and we as a pretty large group of we ... epidemiologists, infectious disease experts, global health, public health people. You know, we live in a, in a sea of microbes. There's bacteria, parasites, prions, viruses, but particularly the viruses. And periodically, we have, we've faced a virus that is relatively novel to us, whether it's, whether it's a different variant of flu, a rearrangement.

And we've seen that happen several times, whether it's a different viral illness. And we've seen a few coronaviruses. Right? We saw SARS 1. We saw MERS. So, we live in a world where we're constantly exposed to viruses. Viruses have the ability to mutate. Actually, that's what they do! So, it's always interesting to say, “Oh, my gosh, it's mutating.”

Of course! That's what viruses do! And so, we live in a world where we're always, you know, under threat of having something spillover from another species. ... have something that we're used to but change in a certain way ... their immune system is not ready to handle. And these viruses, they take advantage. Not in a sort of anthropomorphizing sense, but, but their fitness takes advantage of the fact that human beings like to be around other human beings.

We like to talk. We like to be close. We like that interpersonal connection. And so particularly if you're a respiratory pathogen like the coronaviruses, like influenza, you know, we are at risk just by doing what we normally do of allowing one of these viruses to spread, allowing it to undergo the selection pressure to become more fit. And yeah, so I think that this is just one of our challenges going forward.

MCGUIRE: Sure. And, we all know the huggers! We all know a hugger. (Laughter) “I don't care if I have a mask, come here!” Yeah.

GRIFFIN: Yeah.

MCGUIRE: That's funny! Another question I wanted to ask you about, and, and maybe an obvious answer, and it may not. But when we talk about the maybe potentially overuse of antibiotics over the last couple of decades and even um hand sanitizer, I don't know, have we put ourselves in kind of a place where we're more vulnerable to these viruses or not?

GRIFFIN: So I think one of the biggest challenges, right?, we talk about, you know, future pandemics, but we're actually in already in the midst of another pandemic. And this is the pandemic of antimicrobial resistant organisms. And we have really overused antibiotics to the point where we already estimate hundreds of thousands of deaths are due to antimicrobial resistant infections, which should have been easy to treat.

We talked a little bit in our first episode about how I'm most shocked when I hear these antibiotic shortages, because they're being used to treat all these respiratory pathogens. That's, that does, makes no sense. And so, you know, we have to be careful. And as patients, we have to have a conversation with the physician. Don't go in asking for antibiotics, go in for asking why you may not need them.

So if you have a virus, which I think a lot of people now know what that is, you don't need a Z pack. A Z pack is not going to be helpful, and you're going to live in this society. And as we continue to lose our antibiotics, when you really have something that would benefit from a Z pack, it will not work for you.

So yeah, we're already well into our antimicrobial resistant pandemic, but we can make a difference. We can, we can bring that back. You start reducing your risk, you start reducing your use of those antibiotics, and the bacteria start becoming sensitive again. We have several examples of that. So, so we can back our way out of this. But we've got to do it. We've got to stop misusing. We've got to stop overusing. We've got to stop inappropriately using those antibacterial agents.

MCGUIRE: Good to know. What about herd immunity?

GRIFFIN: Yeah. Herd immunity is tough, right? People were talking about this early on, and there's a lot of assumptions in this issue of herd immunity. And so, one of the assumptions is that once you've been infected, you're removed from the pool, and you can't be reinfected. And one of the things that people who have been studying coronaviruses for many years pointed out early on is if you get infected with a coronavirus, you can get reinfected a year later.

Coronaviruses tend not to give you durable, lifelong immunity from reinfection. So the idea of herd immunity may not apply, I'm going to say, does not apply to coronaviruses. What can we do with vaccines? With prior immunity, we think we can reduce your risk of severe disease. We still think there'll be certain individuals that will require antiviral therapies and other therapies. But I think we need to, we need to ask, does the concept of herd immunity apply here? And I think the answer that we've really learned is no, it really doesn't.

MCGUIRE: Okay, good. Glad you cleared that up for us. Do you have any other just to go back, I'd like to wrap up this section with a little more discussion on interpersonal relationships. Do you have any other examples or cases that you'd like to share with us that can illustrate that?

GRIFFIN: Yeah, I guess maybe we'll give one and perhaps this will be a closing case. But it was just a case from last week, which I really, I think extols the importance of good interpersonal um ... and it was, it was a lady ... she, she had cellulitis. She was starting to get better. We were talking about, you know, she should be able to go home in the next day or two.

And suddenly the husband who'd been there at the bedside just wasn't there. ... was kind of, "Oh, she can't come home. We think she needs more IV antibiotics." And I was talking to the nurse, "What do you think is going on?" I mean, this person doesn't need more IV antibiotics. How would they even know? ... because they haven't been in in a couple days. And then ... sort of alerted me like, "Well, you know, before he left, he was, he was coughing a little." "He looked like maybe" And so a phone call, a little bit of pressed questions. We realized that the husband had, actually had COVID, right? So, he's been coming to visit her. Now he went home. The reason he doesn't want her home is he's got COVID. He's worried she's going to come home and get COVID, but we go and see her, and she started to get, you know, a little bit of a raspy throat. We test her. She's got COVID, you know? And I don't think we would have been able to pick that up without sort of the, the observations of the nurse, her noticing.

MCGUIRE: It's one of those, "Hmmm," important ... but the important part is she verbalized it right? That, that

GRIFFIN: Yeah, that was issue here, and she was able to help us get to the bottom.

MCGUIRE: Right! I think that's the key is just being able to verbalize it. And, you know, I was going to say if you feel safe, but even if you don't feel safe ... and not, you know, not safe in the sense of blatant hostility ... but if you don't feel secure, it all comes down to advocacy for the patient. Correct? Ultimately? Right. And I think that if we all keep that in mind, treating them like as if they were a member of our family, then you're gonna say what you feel in your gut regardless.

GRIFFIN: Yeah, I know, I mean, that's, that's the ultimate is, is always do what you feel is, is the best thing for your patient. You know, you won't always be there. You know, we won't always be the right decision. But, as long as that's your intention

MCGUIRE: Yes. ... and an important thing to remember for those who are new to the profession as well, because that can be a little intimidating initially. But that, that is key I do believe. Any final words or anything else you'd like to share with us before we wrap up?

GRIFFIN: Well, I think the big thing is to appreciate that this has been a really tough 2 to 3 years for, for all of us, for physicians, for nurses, for pharmacists, for respiratory therapists, for physical therapists, for the janitorial staff. I mean, really, a lot of people have had a tough last few years. And so, we need to be there for each other just emotionally.

Also, if we're there for each other and we communicate well, our patients do better, we do better. So that will be my final word. As you know, we're all part of a team. And when we see it that way, when we work together

MCGUIRE: Yeah. And I'm glad you mentioned all of those departments, because that, all of it is interprofessional. That's really, really wonderful. Well, I cannot thank you enough for this podcast series. This is really important information. I don't think we can ever hear enough about COVID and what's going on in the current state. So, it's been extremely informative and obviously those interpersonal relationships are crucial.

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So please don't ever hesitate for our listeners to say what you need to say or what you feel is necessary. Thank you again, Dr. Griffin. We really appreciate your expertise. This has been a really interesting series.

GRIFFIN: Oh, thank you so much. My pleasure. And, everyone, be safe.

MCGUIRE: ... be safe! And thank you all for listening again. Please check out all the numerous courses and information on [EliteLearning.com](https://www.elitelearning.com) as you move forward in your career. This is Leana McGuire for Elite Learning by Colibri Healthcare.

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