

# **A Review of the Outpatient Treatment Methods for COVID-19:**

## **A Special Interview With Dr. Pierre Kory**

**By Dr. Joseph Mercola**

**Dr. Mercola:**

Welcome, everyone is Dr. Mercola, helping you take control of your health and today we have a real treat for you is we're talking to one of the leaders in the movement for addressing the implementation of actually treating the COVID infection as an alternative to using the COVID jab as a method of preventing it, which clearly it's failed miserably. And so this is Dr. Pierre Kory, he is a critical care physician. He's triple-board certified internal medicine, critical care and pulmonology, pulmonary medicine. And he just told me before we started recording that he lost his job because of his position. So we're going to hear the details of that and in engage in some really interesting dialogue, you'll definitely want to keep tuned. So welcome. And thank you for joining us.

**Dr. Pierre Kory:**

All right. Thanks. Good to be here, Joe.

**Dr. Mercola**

So why don't you give us a little background of you know, your history? And what and what led to your recent termination? In your position?

**Dr. Pierre Kory:**

Yeah, I mean, you want me to have about the history and the pandemic or my career real quick? Yeah, do

**Dr. Mercola:**

Career. Tell me briefly, you know, just so people know what your background is for those who may not be aware of you? Yeah. Yeah.

**Dr. Pierre Kory:**

Sure. Anyway, basically, um, so I was a math major in college. I was fairly immature. When I graduated from college, like a lot of young men didn't know what I want to do. I was actually in the restaurant business for most of my 20s. I went to medicine late 29.

**Dr. Mercola:**

That is late.

**Dr. Pierre Kory:**

That is, yeah, you know, while I was in restaurant business, I got a degree in like health policy. And so I was studying health, I always wanted to be a doctor, I just was not mature enough. And so anyway, went to medicine late.

**Dr. Pierre Kory:**

And became obviously – I went into internal medicine. And, you know, when I was in internal medicine, I just thought the best doctors in the hospital were the pulmonary critical care, guys, they just seem to be able to handle everything from the minor to the most severe and I just, I don't know, I just really respected those. I wanted to be like them. And so I became a long an ICU specialist. And most of my career was in Manhattan, actually, at Beth Israel Medical Center where I was, I helped run the ICU, I had a really busy outpatient and endoscopy like bronchoscopy practice. And then I was recruited to the University of Wisconsin about five or six years ago, where I was the chief of the critical care service. And I'll just finish, you know, when COVID hit, I was in a leadership position. And I very quickly saw that — I basically, I resigned, because the way they were handling the pandemic, I felt sort of morally and ethically obligated, I refuse to be in a position of leadership, Joe, when they were insisting on supportive care only. So you know, I was on the phone every day with all my friends, colleagues and ICUs. In New York, they were like getting buried, running out of ventilators. ICUs were overflowing everybody, that the mortality rates, I don't think people remember the mortality rates in that first surge in New York, were just absolutely off the charts. And literally, the leaders in my specialty, were saying oxygen, fluids and Tylenol.

**Dr. Mercola:**

Let me just interrupt your description for a bit. I'm just wondering, curious as to your thought and why the mortality rate was so high early on with this retrospective scope that we have now? Is it likely because they refused to give any treatment before, they basically told anyone with the illness, “Go home and come back when you're ready to die.”

**Dr. Pierre Kory:**

Well, not well. So certainly, the lack of early treatment would be part of it. I'm talking about hospital mortality, because certainly – nobody really and even me, I gotta tell you at that time, the way I was trained, Joe, I mean, I came out of the establishment. I mean, I was definitely

always a free thinker, and I had trouble in, in the ivory tower. But you know, I never really thought there was an effective antiviral, you know, aside from you know, Valacyclovir, surely not remdesivir. But like, I didn't think it was anything specific for the early phase. The virus, however, as an ICU physician, as a doctor was an expert in lung injury, and in severe lung injury and acute respiratory failure that landed on a ventilator. I knew there was a bunch of stuff that we could use and the fact that we were using nothing. Even anticoagulation, we could see that they were clotting to the degree that I had never really seen before. That first phase of COVID the clotting was through the roof. I will tell you, my opinion is the disease's change. I don't see the degree of clotting, like I did in that first phase. There's something that happens in the disease. But they were literally telling us that we needed randomized controlled trials to do anything. People were dying. No, I mean, you get you got how broken medicine is. But so the issue was, all of my ideas were getting shouted down. And I was kind of almost, well, it was almost visible that like, the clinical meetings that I was holding with all the hospitalists and all the intensivists. My superiors were showing up and kind of now like getting me to stand down. Because I was entertaining the idea that we should do this, this the other thing, and they didn't want anything to be done. And so I said, "I'm done." You know, I'm leaving, and New York was begging for people to come back because they were getting crushed.

**Dr. Mercola 5:37**

And so how long was ago was this when you left Wisconsin?

**Dr. Pierre Kory:**

We got our first patients, I would say mid-March 2020. I resigned by mid-April, early April, and then and then. And then I went to New York for five weeks, and I ran my old ICU in New York. And so I resigned from my first job then and so I already had a difference of opinion on how to approach this disease. And I don't know if you know this, but I gave testimony in the Senate in May of 2020.

**Dr. Mercola:**

That was in, where it was, at the U.S. Senator Wisconsin?

**Dr. Pierre Kory 6:14**

The U.S. Senate. So it was in a homeland security meeting. And I gave testimony saying that it was critical that the world use corticosteroids in the treatment of the hospital phase of this disease. And I got killed, University of Wisconsin, because I was still kind of employed by them. Like my actual resignation date hadn't happened. They were livid that I was speaking in public giving my opinion, which, if you know anything about academics, like I had an appointment as

an associate professor in society as an expert in a field, you're actually responsible to share your insight and expertise. And yet they were very unhappy that I was doing that. And you know what, I got killed at that time. But guess what, seven weeks later, when the recovery trial came out from out of the U.K., it's now standard of care worldwide is corticosteroids in the hospital phase. And so, you know, I had a bumpy ride from the beginning. And just to finish up the point that you brought up, so then I did locums, I traveled around the country to hotspots I was in Greenville, South Carolina running ICUs down there. Then I joined a big center in Milwaukee, I gave another Senate testimony, the one on ivermectin, which you're probably aware of. Guess what, Joe? They didn't like that one. And we decided to part ways there. They didn't fire me actually, they gave me a new contract. And the new contract basically mandated that I speak to no one or do anything without checking with them first. And you know, I just said "I don't do muzzles. I'm not doing that." And so I left there. And then I've had a really nice job. I was doing locums in Wisconsin at a really nice ICU. But the administration there was very unhappy that I was there. You know, no institution wants a, I'm using quotes here, a "controversial doctor," wherever it was outspoken opinions. And so let's just say they figured out a way to get rid of me.

**Dr. Mercola:**

Yeah. Wow. So you're, you've got a little more free time now, which, you know, may seem distressing that you were let go. But ultimately, these life tragedies and surprises tend to work out much. Most of the time working out for the best.

**Dr. Pierre Kory:**

I think it will. I got some plans. And I think it's good. I'm looking forward to my next phase.

**Dr. Mercola:**

So I want to touch on some of the items you'd mentioned. One was the corticosteroids. And I think you're really an important agent implementing our understanding of the value importance of this. So and I want to have you expand on that in great detail because I really didn't get it as much I certainly understand, it's a very effective tool for reducing inflammation, but I'm somewhat biased and prejudiced against pharmaceutical intervention. So I had a close friend who's relatively healthy, about 60 years old. So it came down with COVID and just got slammed with it close to death, actually, and he was on everything that I knew to do. And then he hit he had actually run a series called "COVID Revealed" and had previously interviewed Peter McCullough. So he texted Peter, afterwards, still going downhill. And Peter said two words, "prednisone and aspirin." So as soon as he took that prednisone, his life change. I mean, he was, his lights came back on. So I'm wondering if you can, I mean, just spend some time on the steroids. The reason why it's important, when it's appropriate and what the dosing is, because this is this is something that's not widely discussed.

**Dr. Pierre Kory:**

Yep. So let's go to the background of cortical steroids and viral syndromes. Right. So you know, we have to keep in mind right that COVID is really our fourth kind of pandemic, right? You had a epidemic or pandemic of coronaviruses or severe influenza: SARS, MERS and H1N1. So going into COVID. You know, we had the experience of all those doctors trying to treat those severe viral syndrome, right. SARS was deadly. MERS was deadly. H1N1 was pretty severe. And when you look at all the trials from those pandemics, it seemed like there was no good randomized control trials. But when you look at the observational, it seemed that everyone who got steroids died more frequently. And I got to tell you, it was just a gross and silly misinterpretation of the data. The reason why patients who got steroids died more frequently is because they were sicker. And so the steroids were actually a marker of them being sick or if you actually looked and match the severity of illness in those studies, and I will say you know, I was part of the FLCC right, so it's me and myself, Professor Marik, Professor Umberto Meduri, Joseph Varon and Jose Iglesias those are the five docs I came up with the first protocols. Umberto Meduri is a world expert in the use of corticosteroids in critical illness. And Umberto and another group of colleagues. They published a paper in April of 2020 basically trying to alert the world that if you look carefully at the data from the prior pandemics of coronavirus, or severe influenza, that steroids were lifesaving in anyone with beyond mild illness. So essentially, as soon as you start to see lung dysfunction or the need for oxygen, so moderate to severe illness, steroids were lifesaving. Early on, if you give it as an outpatient during the early viral replicated phase, there was actually a signal to harm, which is the same thing in COVID, right. There is that the trial that I mentioned before that came out of Oxford in the U.K., they showed the same thing early on before the need for oxygen, there was a trend to harm. Okay, so we know that in moderate to severe illness, it's lifesaving, and I'll tell you a number of reasons why. It's just this thing triggers just a very complex cascade of inflammation. And I got to tell you, the core of what this disease is what COVID-19, severe COVID-19 is, it's literally a macrophage activation syndrome. You know, it's the macrophages that get stimulated, they're the hyper-inflammatory subtype, and they're causing organ damage.

**Dr. Pierre Kory:**

So you want to use medicines that either suppress their activity or repolarize them into the hypo-inflammatory, because there's actually two kinds of macrophages, M1, M2. So we didn't know that it was a macrophage activation syndrome at the time, we just saw a wicked inflammation. And we knew that from prior pandemics that the Coronavirus pandemic steroids were lifesaving this year. So we started using it. And what's interesting is the world didn't listen, the world didn't even listen to it. And this paper that he published with some very, very prominent physicians in critical care, and was it was published in a very prominent journal. But in that spring of 2020, there was so much noise, so many publications, so many people saying this and that, and

basically everybody was looking to the agencies, and they weren't looking to the clinical experts. And so-

**Dr. Mercola:**

They still are.

**Dr. Pierre Kory:**

They still are, yeah, they still are. And that is one of the many great tragedies that everyone keeps thinking that the experts are at the agencies, They are not. Those who are administrators and bureaucrats and people who have gotten names for themselves throughout their careers, they are not COVID experts, not one of them. And I got to tell you, they don't sound like they listen to COVID experts and so, so but anyway, that that's what happened at the time. And so, but nobody was using steroids, and we saw people dying. And I started using them. And I'll tell you this, my colleagues in New York who were running ICUs, they saw everybody landing on ventilators. They couldn't excavate them. They couldn't avoid mechanical ventilation. They were all deteriorating. Once they started steroids. And this is at St. Luke's at in, you know, Spanish Harlem, out in Brooklyn and Methodist Hospital, my colleagues, some of my colleagues at some of the Sinai affiliates, once they started using steroids, they saw a marked difference. And you know what? You started hearing about this on social media, hospitalists and intensivists from Detroit, from New Orleans, even from Seattle. They're all saying like, "Start steroids." So like, we knew all of this on the ground, but nobody would listen. And so that that's my role of steroids, sort of in the in the critical illness. But going back to like what your question is, is like, what's the role?

**Dr. Mercola:**

But wait before we go there, and remember that because I got a quick question for you. I actually got most of my questions pointed something out there because it's an interesting observation that you mentioned that initially, it was thought that steroid use in this disease was actually causing or contributing to great harm. But it's a classic illustration of association is not causation. I mean, it couldn't be more clear that and you know, even more blatant example is that people can maybe more easily understand is that if you have a fire and the firemen come up, you could you could tell me clearly fire trucks are associated with fires, right? So you could do a study and say, "Well, maybe it's the fire trucks that are causing the fire."

**Dr. Pierre Kory:**

Perfect analogy.

**Dr. Mercola:**

Yeah, so it's not and thankfully, you experts tease it out and found out this was important. So go on to your question.

**Dr. Pierre Kory:**

Your point is so good, because all of medicine had associated steroids and a viral syndrome is bad. And it's more nuanced, right? So in severe and late phase, it's actually lifesaving early on, it's probably harmful. Now, here's the caveat to that. I would argue all of those studies showing harm of prednisone early in viral syndromes. They were not studies where there was a good and effective antiviral being used at the same time.

**Dr. Mercola:**

Using this prednisone, that's it?

**Dr. Pierre Kory:**

So just prednisone alone, early on in a viral syndrome, probably suppresses the immune system, and actually potentially its replication of the virus. But, for instance, in antibiotic in bacterial syndromes, if you give someone antibiotic steroids in severe bacterial infections are always helpful. They don't harm if you're on an appropriate antibiotic. And I would argue, my belief is that analogy holds true for viral syndrome. If you have an effective antiviral, for instance, like early on, like ivermectin, hydroxychloroquine is effective on a number of other nutritional therapeutics that are on a protocol that I'm sure you've seen, like, if you can show that something can interrupt the viral replication. I don't think prednisone is harmful. So in our outpatient protocol, we have prednisone on there. It's not first line, it's not second line. But we argue that around day, probably around day seven or eight or nine, if you're not better, and things are getting worse, that's when we would use prednisone as an outpatient. So we have moved our steroids early. But I got to tell you, Joe, to finish here is that – I want to I want to be humble, which is, which is the right time to use steroids is not too early and not too late. Yeah. What time that is? You know, you have to be a doctor and use your best judgment. You hope you get it right. But you know, it's you know, there is something to be said for doctoring. Right, not everything can—

**Dr. Mercola:**

You gave us some parameters that you don't do before a week until you start going south.

**Dr. Pierre Kory:**

I think that's reasonable.

**Dr. Mercola:**

Yeah. And then what's the dosage when you start is if you do the high dose and wean off rapidly or-

**Dr. Pierre Kory:**

So if I'm going to start steroids in COVID. I do a milligram per kilogram of either prednisone or methylprednisolone. I don't use dexamethasone, I just for many reasons, we have a number of studies of different corticosteroid agents and COVID. All of the ones with methylprednisolone have better outcomes than dexamethasone, even though the largest trial uses dexamethasone. That's number one. Number two, we have decades of experience using methylprednisolone and prednisone in lung disease. And also we know that the concentrations and the duration of action in the lung, we believe are longer from studies using those agents. So we don't use dexamethasone, I use a milligram per kilogram now. I don't use predetermined durations. Right. And I think that's another absurdity. So is that, you know, because the study like the recovery trial, they use 6 milligrams dexamethasone for 10 days, I saw throughout the pandemic, I saw all of these doctors, literally in the ICU, patients on a maximal ventilator support. Day 10, the doctors would stop steroids. I've never heard of, I mean, I was like, "What are you doing?" You know, and it's almost like in septic shock, which is one of the disease models that I'm expert at. It's like, when you need a vasopressor to maintain blood pressure, it would be like saying, "I'm going to put them on vasopressors for six days or three days, and then I'm going to stop." And then you let their blood pressure tank and so I just saw really odd and bizarre doctoring, I just saw this over-obsession with following protocols and like what what people said treat and nobody wants to do their own thing, and nobody was using judgment. So how I do it, milligram per kilogram, and then I watch what they do. If they're improving, I continue it and then I start to taper once their oxygen requirements are rapid or significantly decreasing, but I continue until they're off oxygen. Once they're off oxygen then I taper off over about a week to 10 days sometimes shorter. Depends how long they were on oxygen if they're on for a short time. I do a fast taper, if they're on for a longer time, I'll do a slower, slower taper. But I don't taper off. I don't start fully tapering until they're off oxygen.

**Dr. Mercola:**

Interesting in that dose, say a 70 kilogram male or person, it doesn't matter the sex. But do you give it as one bolus dose in the morning? You split it up?



**Dr. Pierre Kory:**

Twice, if it's methylprednisolone, which is my preferred agent, it's twice a day.

**Dr. Mercola:**

Why is it your preferred agent?

**Dr. Pierre Kory:**

Because we have the most data on it, number one. Number two, the concentration we believe the concentrations in the lung tissue is the highest. And number three, the outcomes in the studies, all in the studies in COVID, are consistently superior. Now, the one question I can't answer, is it methylprednisolone that's better than dexamethasone? Or is it the higher doses that they were using? I think it's a combination of the two. But I got to tell you the best outcomes in the studies. And there's, you know, a dozen studies of corticosteroids and COVID. methylprednisolone is my favorite agent. That's just again, could I be wrong about that? I could be but I'll tell you, it's definitely not worse than dexamethasone. It's almost definitely better.

**Dr. Mercola:**

Okay. And if you do dose a twice a day, then and is there any-

**Dr. Pierre Kory:**

Twice a day for methyl prednisone? So a 70-kilogram male, I would do 40 milligrams twice a day.

**Dr. Mercola:**

Okay.

**Dr. Pierre Kory:**

And like I said, so here's the other thing, right? So let's say put them on 40 milligrams. And let's say it's more of a classic patient who's like day eight or nine and now starting to develop, like, really the pulmonary phase, right? So inflamed lung, abnormal x-ray or CAT scan, and now requiring a little bit of oxygen. I will watch them very quickly. So day one, when I start, I really

want to know where they're going day two or day three, what is their trajectory? Is the oxygen requirements going up? Are they feeling worse? Are they more breathless? If so, I'm going to increase my steroids, I probably will either double or triple them until I can get them stable to improve it. Right. So if they get worse, I go up. If they get better, I go down, but I follow their disease.

**Dr. Mercola:**

Perfect. All right. Well, thank you for explaining that. It's, I really never heard it discuss much on the podcasts I've watched on treatments. So thank you for expanding on that. And I'm just curious. I just it sounds like and I suspect having no experience in hospital treatments of COVID patients. Would you venture to guess that the vast majority of patients being or physicians treating patients with COVID in the hospital are using dexamethasone if they're using steroids, they're not using methylprednisolone?

**Dr. Pierre Kory:**

They AB in the United States flat out 100%. The vast majority are using dexamethasone, I will say there are some like me who get who have a feel for methylprednisolone, are more comfortable titrating it, they know the doses. So they're definitely are intensive as using methylprednisolone. But the standard problem, most hospitalists, they're clearly all using dexamethasone, for sure.

**Dr. Mercola:**

Okay, so that's a big, big tip for anyone watching this who has a friend, relative or a loved one who's under the care of a physician in the hospital with pretty severe COVID is just have them switch to methylprednisolone. And just listen to this podcast because any physician could easily understand the treatment protocol that Dr. Cory just described. So I think, let's move on to another component that you mentioned earlier, which is, I hadn't heard this before, but your observation that the character of the disease seems to have changed and, and by that I mean that a shift more from the clotting to these other components. So, but clotting still seems to be-

**Dr. Pierre Kory:**

Oh, well, hold on. Let me let me just say, Joe, so the degree of clotting. So the first patients that I saw, and I still remember them in April of 2020. In fact, my first paper I wrote in COVID, and I've been an author, coauthor on maybe 10 or 11 papers, the first paper I wrote was actually on the clotting, because in the first four or five patients we saw, we were doing this very specialized clotting assay. It's called thromboelastography it's only really available in the hospital and at in ICUs. And we were working with a really a nationally famous hematologist at the University of

Wisconsin, and we were showing him these clotting profiles. And they were about as severe as you could get on the clotting side, right? So we, you know, in our coagulation indices, right, there's hypercoagulable, and hypercoagulable. And these were about as hypercoagulable as you could get, the blood of these early patients, and they were so abnormal and so severely clotting, like literally, you could draw a blood and like you can actually see the blood clotting very quickly in the tubes, right. So that's how bad it was. And we saw it and then the degree of clots that we would find in these patients were very, very high. Fast forward like four to five months, like some of the indices, like when patients would come into the ICU, they just weren't as high as they initially were, they certainly were all abnormal, we still saw clots. It's just it was just slightly less.

So it's not that like clotting doesn't happen. It's just the severity kind of softened. And the reason why I want to bring that up, Joe, is that it's just such a struggle when you watch modern medicine proceed because they do these massive, randomized control trials, oftentimes designed by people who are not really frontline and really expert clinicians. And they do these trials, they take many, many months. And so like the trials on anticoagulation, you know, they were like designed for like those severely clotting folks. And then they found that not in everybody does full dose coagulation work. Sometimes it's half dose, and sometimes you don't need the high dose. And so there's all these mixed results of these studies. And I think a lot of people are confused at what to do. I'll tell you what I do with coagulation is, I generally follow the D-dimer on admission, the D dimer, right as a marker of really endothelial injury and clotting. And so if I have something and I've even had patients with normal D-dimers, I'll just do routine prophylaxis doses on there. If it's moderately elevated, I do moderate and if it's severely elevated, I'll do full-dose anticoagulants.

**Dr. Mercola:**

Which type of patients are these? Are these inpatient or outpatient?

**Dr. Pierre Kory:**

These are both. So I have put out patients on Lovenox full dose if they had markedly abnormal D-dimers. And is it the right thing like we do have evidence showing that it generally correlates D-dimer? Not every study shows that, but I think it's just it's sound judgment. I will tell you this. So many studies have been done on anticoagulation. And some of them say full-dose anticoagulation is better. Some of them say it's not necessary. But like I said, the data is really hard to parse out. I try to use physiologic principles. And that's kind of my approach at this point.

**Dr. Mercola:**

But it's part of the classic protocol, the Marik protocol, right? For the MATH+ protocol, more specifically-

**Dr. Pierre Kory:**

Oh, yeah. And he and I, I mean, that's, that's, that's something he and I worked on. The clotting part was probably more my contributions because I was doing, you know, I wrote the first paper and I was doing all those what we call tag analyses. And I was sharing them with Paul. And so we, we had a very aggressive anticoagulation protocol from the beginning that you know, MATH+, the H is the heparin, and we had full dose on everybody in the hospital and keep an eye on math pluses for the hospital patient. Right? We didn't have an outpatient protocol until later. But yeah, so early on, we were doing full dose on everybody. Now, we do full dose on everybody on admission, like in a hospital in the ICU, we tend to do half dose unless there's obviously evidence of clot or very high D-dimers.

**Dr. Mercola:**

Yeah. So using the D-dimer as a standard, why don't you give us your guidelines? Because I imagine that the labs are pretty similar throughout the country-

**Dr. Pierre Kory:**

Well, actually, they're not there's actually different reference ranges. Probably best not to remember numbers anyway. So I would just say like, so. It's maybe two to three times above the upper limit of normal, I'd probably do three times. If it's less, I would do intermediate dose. And if it's normal, I would just do regular prophylaxis that would be in the hospital as an outpatient. Our protocol is everybody is on aspirin. Right at the get go.

**Dr. Mercola:**

115 Grades-

**Dr. Pierre Kory:**

325. Yeah, you know, unless there's a contraindication. Everybody has an aspirin. And I'll tell you, I don't check D-dimers. In my outpatients. I just treat them early. I put them on the protocol. And they generally do better, except for when they don't. So if someone is not improving, or there's something that makes me concerned that maybe I'm missing something, or maybe they are clotting, either I'll send them for a scan or I will start checking labs and I'll look at a D-dimer. And so I just recently had a patient who was not really responding as well as I was used to, there was something going on. And it was odd because he was pretty sick. He was on oxygen and his D-dimers were normal. And then he got worse one day, went back to the urgent care, we checked labs and his D-dimers were through the roof. His scan of his lungs was negative but anyway

there I put him on full-dose Lovenox. And I tapered him off, got him on, I put them on for about 10 days and then stopped when his D-dimers came down.

**Dr. Mercola:**

So I'm wondering for the patients at lower risk with not elevated D-dimers, D-dimers in the normal range. I wondered if you've looked at the use of fibrinolytic enzymes like lumbrokinase, nattokinase, serrapeptidase.

**Dr. Pierre Kory:**

We have.

**Dr. Mercola:**

This high-dose proteolytic enzymes that are taken fasting to address the degradation of fibrin.

**Dr. Pierre Kory:**

Yes, so once you form a clot, right, if you're hypercoagulable and you form a clot, heparin is not really going to help you because, you know, you need to be able to break down that clot. So what we did early on in some of the severe cases when we saw this very severe clot, and we were actually using thrombo – you know, TPA in the hospital. And we actually saw clinical improvements. The problem is, the clotting indices were weird, I did see a complication of that, we saw a couple of big bleeds. And some of those early studies just there wasn't a clear single signal of when to use it or when not to so we generally still reserve like the fiber analytics only for life-threatening clotting that you've identified. Right? So like a lot-

**Dr. Mercola:**

But the enzymes are not TPA, and they're much milder.

**Dr. Pierre Kory:**

Oh, you told me for as an outpatient, those-

**Dr. Mercola:**

Oral you know, not TPA-

**Dr. Pierre Kory:**

No, so I have not, I have not used that as an outpatient. I basically stick with the heparins, or the aspirin.

**Dr. Mercola:**

Okay. Yeah. Because it's, you know, I mean, it has its potential complications, too. And then, I mean, high-dose fibrinolytic enzymes are probably good for I mean, certainly, if you have a sports injury, and or any items in your blood that needs to be degraded, and getting rid of it as useful strategy. So it's something that, you know, might have some value there, you know, from my review of the literature, and it's actually-

**Dr. Pierre Kory:**

I think, if we had more personal experience with it, and also a little bit more trust that the problem with us, right, is that-

**Dr. Mercola :**

Yeah. You're treating sick patients.

**Dr. Pierre Kory 31:40**

We're also kind of in the like, we do if we're going to put on a protocol for the world like we do. We want some sort of trials evidence, and there's so many products and compounds that no one's going to do trials on, right or good trials. And so we tend to get biased to like, you know, medicines that are more common to standard medical – you know, I'm saying and so it's one of our biases.

**Dr. Mercola 32:05**

Yes. So that probably would explain my next question, which is, so also seems there be some great value in this areas, which is NAC, N-acetylcysteine. Not only for improving and increasing glutathione levels, but for actually addressing some of the clotting issues.

**Dr. Pierre Kory 32:22**

Yes. So here's another bias with NAC. Maybe it's because we're either dumb or we're intensivists. But we have used NAC in different disease models over the years. So especially in pulmonary medicine for like, you know –

**Dr. Mercola:**

Tylenol overdoses.

**Dr. Pierre Kory:**

Yeah, and well, Tylenol for sure. It's a standard treatment, and that is gold standard for us, but not for pulmonary fibrosis. So in pulmonary medicine, of which I'm an expert, we had long decades where we studied NAC for that. None of those studies panned out. In sepsis, it didn't really pan out. And so for severe disease, we think it's an effective drug, and it's a good antioxidant, and I think it does have anticoagulation properties, but our opinion is it's generally weak. So for the hospital phase, we think it's too weak. Outpatient, here's the problem. This is the problem, Joe, I'm sure you recognize this is that the amount of compounds that have either biologic plausibility more significant clinical experience, are in the many dozens. And so like, how do we now – you know, that's the challenge that Paul and I have had, and that's why we've kind of just, we want studies. So for instance, if you've seen, right, we have like *Nigella sativa* black cumin seed, turmeric, right, even honey, because there were these lovely, wonderful trials that came out of Pakistan and other patients do very well-designed trials showing large-magnitude benefits. And so we can sink our teeth into that stuff, because we have the trial. So on biologic plausibility alone, we're going to be stuck because we, you know, there's no end to the rationales for this stuff.

**Dr. Mercola 34:04**

Well, that was a question I've always had. And thank you for your explanation makes perfect sense. Because you're really between a rock and a hard place, and you have to rely on some more solid, solid scientific evidence.

**Dr. Pierre Kory:**

So many physicians, Joe, will write to us, they'll be like, “What about this? What about that? I'm using this,” like, I'm like, “Great.” The problem is like we can't, we have to have some sort of, you know, we have to bring some sort of order and approach and you know, Paul, really, you know, we really need clinical trials, unless it's something that we feel is the biologic plausibility is so apparent, and the clinical response is so palpable, then then maybe we would be able to get behind something. But-

**Dr. Mercola:**

The other question, it's not so much that the intervention because it's part of the MATH+ protocol is vitamin C, ascorbic acid, is the A in MATH+. And but I think it's a relatively low dose intravenously. What is it? A gram, 1,500 milligrams-

**Dr. Pierre Kory:**

1.5 grams Q=6. So, here's what we, here's what we've learned. So a couple of things. So just so you know, the background of the FLCCC, and me and Paul, so me and Paul, we became very good friends and colleagues over our shared interest and expertise in vitamin C.

**Dr. Mercola:**

Oh, interesting.

**Dr. Pierre Kory:**

So Paul's very well known, obviously, he, you know, Paul really became even more famous than he was in our specialty, when he first proposed and tested IV vitamin C protocol in septic shock. And he chose to dose 1.5 grams IV every six hours, right? So it's only 6 grams a day, which one would argue is maybe not so much. But I think the every six hours is also important there. But he found it wildly effective, unbelievably effective if you give it early in septic shock. And so you know, when I first saw his first paper-

**Dr. Mercola:**

I think it was 85% reduction in mortality.

**Dr. Pierre Kory:**

It was unbelievable what he saw. But let me give you the caveat to what happened to this IV vitamin C store in septic shock. So I ignored it because I was like, at the time, I thought it was just too fantastical, didn't make sense to me, I didn't understand how you can get 85% reduction when you're using these doses of a vitamin. I was very, very sort of skeptical. And then maybe six to seven months later, I was taken care of a dying patient. And I remembered his protocol. And I said, "You know, let me try it." I tried it. And I have to tell you, the patient died. But I also knew at the time that I tried to literally there was, you know, it was not going to work. But then I said, you know, it seems harmless, let me start to use it. And I started to put it in my practice.



And within three patients. The third patient, I tried it on, I saw something that I'd never seen before. I saw a physiologic response that was so overwhelming that I didn't even know what to do with myself. And I started to talk to colleagues about it. I called Paul. Paul and I became really good friends. And before going into too much of that. But I started to do studies and I started to promote a protocol at the University Wisconsin, of which you can imagine, Joe, I got a lot of pushback. Like you have no idea. So COVID is not even my first, you know, rodeo in medicine. I had a few other you know, wars in medicine. But-

**Dr. Mercola:**

You have iconoclastic behavior. Yeah,

**Dr. Pierre Kory:**

Maybe so but Paul and I, that's where we first bonded, and we knew it worked. But here's the thing, I learned something – I taught Paul something about vitamin C that he didn't know. In the septic shock model, based on my data, we found out that if you give the IV vitamin C beyond 12 hours from admission to the emergency room, it had no effect in changing mortality, or kidney failure, or really vasopressor duration. If you gave it within six hours, it was almost perfectly protective. Literally the patients if you give it to them early, it was great. And that's what Paul's first study showed. However, the rest of the world, when they tried to replicate Paul's study, they didn't pay attention to the fact that almost all of his patients got it within six hours of arrival. Because Paul's inclusion criteria in his retrospective study was that he only looked at patients who got it within the first 24 hours. And he didn't report that almost all of them had gotten within first six. And I got to tell you, that is a historic error in medicine, because there has been at least, I don't know, six to 10, large IV, vitamin C, and septic shock trials. And all of them, almost all of them are negative for mortality. But I got to tell you, the time of initiation is so far into septic shock, that it's ineffective. Right now there's a big trial going on in Belgium where they are giving it early within six hours of arrival. So anyway, that's the key. So here's what we found out about IV vitamin C to go back to your point is that we found out in septic shock, particularly, relatively low doses that you mentioned, like 1.5 Q=6, that actually works if given early. We think that if you give it late, this is a hypothesis. We haven't tested this. But we think that if you are later than the six to 12 hours, higher doses might be required. And so I think that's for the future of medicine to answer that question. We do have anecdotal reports of severe advanced septic shock from some colleagues who've used high doses of you know, like 25 grams or whatever. And they've seen pretty phenomenal responses.

**Dr. Mercola:**

That is really interesting. So just the pragmatic component you would know, and I'm certainly unaware of because I don't do hospital medicine, is how available widely available is ascorbic

acid in most hospital ICUs or pharmacies, get it for intravenous use, is it available? Or do they have to like order it in, which would make it almost impossible to implement within the first six hours?

**Dr. Pierre Kory:**

Such a good question. So, in my experience at the major medical centers, they all have IV vitamin C, because although Paul is discredited for his IV vitamin C trial, because it was retrospective, observational and the randomized did not replicate it. I think there's still a number of doctors who recognize that all of those further randomized control trials, really were not well-designed. And so here's the thing. So when I was the chief of the service at university, Wisconsin, we were about 17 or 18, ICU specialists, I would say three to four of us had it as standard in our practice, the rest of them didn't. And my sense is that in most big ICUs, you're going to have one or two that use it. Okay. So I would say the big centers do. The smaller hospitals. So I've worked in a number of major centers where we get a lot of transfers from regional because now I live in the Midwest. I'm a New Yorker, but I live in the Midwest now. And when we get it from these little hospitals, many of them don't carry it on formulary. So is that a fair answer? Like it kind of-

**Dr. Mercola:**

A big, big center? No problem, most likely, because of the number of physicians there is going to be available.

**Dr. Pierre Kory:**

And Joe, because it's such a sophisticated medicine.

**Dr. Mercola:**

It's so expensive.

**Dr. Pierre Kory:**

You need a really sophisticated center in order to find intravenous vitamin C, literally a water-soluble vitamin, you have to go to specialized centers to find it is absolutely absurd.

**Dr. Mercola:**

Yeah, well, you know, and it makes sense. It's largely reflection, not so much of their belief in it, but the number of clinicians on their staff who are using it. I mean, it has an expiration date. So if no one's going to prescribe it, why buy it and have it available? No one's going to, you know, use it.

**Dr. Pierre Kory 42:01**

But one other thing, though, so there's also a trial. So I talk mostly about this disease model of septic shock. The disease model of ARDS (acute respiratory distress syndrome), had a really interesting trial about three or four years ago, called the CITRIS-ALI, acute lung injury trial. And they actually showed a profound mortality benefit. And in that trial, they use 50 milligrams per kilogram IV Q=6, which is around a little bit over two, you know, for a regular 70-kilogram male, you know, it'd be it'd be about 3.5. Right? So what was it or 2.5 milligrams, 2.5 grams IV Q=6, so there, it's about 10 grams a day. And they showed a large mortality benefit. And, and so if you look at our doses, although we use 1.5, just because that was our standard dose, the CITRIS-ALI uses 50 milligrams per kilogram, which is 2.5. And then there's a number of case reports in advanced lung injury, what we call mega-dosing, so 25 grams twice a day has, you know, there's a number of case reports where they saw profound responses in the, response to lung injury of these high doses. So we I don't think that we do it perfectly on our protocol, but we do it pragmatically, which is, I got to tell you, the one thing that most hospitals won't do, they won't let you give 25 grams twice a day.

**Dr. Mercola:**

Yeah, well, just hospitals will not administer it.

**Dr. Pierre Kory:**

No, because there's no precedent for it. They don't know anything about it. You can't say, "oh, there's a case report where it worked really well." I mean, medicines broken that way they don't – even something as safe as IV vitamin C, they'll think that you're crazy if you want to give someone 25 grams.

**Dr. Mercola:**

Unless, you know you're you've somehow established your protocol and worked them up and you have a relationship with them. But as a tangent to that. And a reflection of my being a Boy Scout early on, never made Eagle but it got close. Would it make sense for people watching this who are concerned about someone in their family or community that's going to get sick and go to the hospital, and it's a local community hospital, so they won't have the IV vitamin C, or maybe they can call them and see if it's there. But if it's most likely not, just to ask their doctor to order

that for them. It's a vial, it's not very expensive, they could keep it in there and then bring it to the hospital. And then they can at least administer it.

**Dr. Pierre Kory:**

So I have been involved with a number of cases where hospitals, pharmacists formularies in the hospital have been asked to get because remember, you can get any medicine in this country generally within 24 hours. I mean, you can-

**Dr. Mercola:**

But it might be too late at 24 hours.

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**Dr. Pierre Kory:**

No, no, 24 hours is long, but for a hospital, you can borrow from a neighboring hospital, you can get it shipped. I mean, there's ways to get these medicines. It's not the how to get the medicine, it's whether they would give it. So they would have to be under the care physician was willing to prescribe it. And if a physician has no experience with it, but you know, they don't do it, they don't do it, I'm telling you, they don't do it.

**Dr. Mercola:**

That's got to be so frustrating God, you know, you have something that's going to be essentially lifesaving, and they refuse to administer. And with virtually no side effects, no side effects,

**Dr. Pierre Kory:**

You should see the resistance I got when I was like, at one point, I was the director of the main ICU at University of Wisconsin. And the data for me was so overwhelming, the early data, and I just said, "Hey, guys, can't we just start a protocol where we just give everybody on admission IV vitamin C, like, what's the downside?" Everyone starts talking about kidney stones and all of this nonsense, and we had so much data to show that doesn't happen in acute illness, or in IV formulations. But it's, it's bizarre. It's bizarre, like when you propose a new way of treating someone to a doctor, this is what I've found. Every time I have what I would call a "bright idea." I'm faced with a doctor who is by definition smarter than I am, who knows more than I am. So when I have a new idea, obviously, my idea has to be wrong, Joe, right. Now, because if it was right, they would have thought of it first. And literally, I feel like I live in a cartoon in medicine, because every time I discuss with someone, they just don't believe anything works. Because if it worked, they would be doing it. It's bizarre. It's bizarre.

**Dr. Mercola:**

It's, I think, a testimony to the arrogance of many physicians, you know, they're well-intentioned, but they just are reluctant to accept that there's other people who have insights that might be helpful to them. And they've long since lost their journey of being a perpetual student.

**Dr. Pierre Kory:**

It's 10% that I find that aren't that way. Like, you can approach a doctor, you start having a conversation like this, and they're like, "Huh, that's interesting," or "I'm intrigued" or seems reasonable, right? Those kinds of responses, unfortunately, it's a very small minority. And so it's like you said, it's, it's this ingrained arrogance that physicians either are trained with, or it comes with the territory, but it's very damaging. I think it holds medicine back and it hurts patients.

**Dr. Mercola:**

Or kills people. That's killing people. Literally. That is not hyperbole. So on a really important topic, I mean, you've put together an outpatient protocol. And obviously, you've sifted through a lot of the evidence. And I know, I just want you to share what that is. And I believe you're going to be sharing that you're not claiming this is the ultimate – this is the gold standard. This is what you've accumulated together based on the data and there may there likely is some better interventions that could be added to this, but this is a start. Would that be fair?

**Dr. Pierre Kory:**

No question. So first thing, I would appreciate that the way you brought up that question, Joe, is that, because you're helping me remind myself. So our protocol, number one, is always an evolution. We're not saying like, "This is the only way to treat it. This is how we decided to treat it. This is how it will always be treated." We reserve the right to deprioritize, change the dose, substitute a new medicine, you know, we want to follow the data and the experience and the knowledge of this disease. That's number one. Number two, all of our protocols are combination therapy protocols. And by the way that gives doctors fits. You know why? Because they want to know, well, "How do you know that this is necessary? How do you know this and like, we know that there's trials of each individual component showing that they're effective, we believe that they're synergistic. We're never going to do a trial which tests every component on our protocols with just practicing medicine and giving what we think is pragmatic, sound advice. So that would be one statement. The second is, there's a number of protocols, right? So the AAPS (Association of American Physicians and Surgeons) has a protocol. You know, Tess Lawrie's World Council for Health, they have a number of options. And so there's a lot of doctors who might emphasize or de-emphasize that, you know, a medicine on our protocol. And so, we do not

pretend that this is the only way you know, skinning the cat. But we do put a lot of thought into it. And most and you'll also notice, another thing is that most of our medicines are repurposed, right? So they're not novel. They're very well-known over decades, safety profiles are well known, they tend to be generally low-cost and their mechanisms are well-known. And so I would say, a central medicine to all of our protocols, prevention, early treatment, hospital and late phase like long haul is ivermectin for many reasons, right. So we find that ivermectin is a potent anti-viral. That's been demonstrated for 10 years now in the lab and numbers of RNA viruses, they've shown that it interrupts replication of like Zika, dengue, West Nile, even HIV it shown some efficacy in the lab. And then the clinical studies are just overwhelming. Can I just take one minute to say that if anyone wants to call ivermectin a controversial medicine, I just want to call out it is absolutely not controversial. It is a medicine that is buried in corruption, and the corruption is in the suppressing of its efficacy. There are unfortunately – this is what I had to learn in medicine is that there are immense powers that do not want the efficacy of that drug to be known. Because if it is known and becomes standard of care, it will obliterate the market for any number of novel pharmaceutical products. And so it's-

**Dr. Mercola:**

It would eliminate vaccines that the justification for emergency authorization would fail to exist.

**Dr. Pierre Kory:**

So when you look at the actions taken against ivermectin, it can only be understood that it's threatening something big and powerful, because boy, has it been attacked, and it's been attacked. When it sits on like literally 64 controlled trials, almost every single one of them showing benefit, many of them large benefits, and yet, the other side distorts it to make it seem like it's controversial and it's absurd. And so, we know it works. We know it from in vitro, in vivo animal studies, case series, one of the first case series in June of 2020. That came out in Dominican Republic, 3,300 consecutive patients coming into the emergency room, they treated ivermectin, 16 were hospitalized, one death, 3,300 patients. I mean, a profound result of acutely ill COVID patients in the Dominican Republic. And those experiences have continued now, one caveat is that we were playing catch up a little bit because ivermectin has a dose-response relationship. And remember, Delta had 250 times the viral loads of Alpha. So we started seeing breakthroughs on our prevention protocols. I'm one of them. I got COVID. While I was taking it weekly, now we're doing it twice weekly. Is it the right dose? We're not sure-

**Dr. Mercola:**

Because there a number of videos that tried to disparage you as a result, they've tried to widely circulated discredit you.

**Dr. Pierre Kory:**

I found that you know that people took a lot of glee in that, like, you know, you know, doctor who recommends ivermectin gets COVID while on ivermectin. And I got to tell you, maybe I'm just naive and too much of a physician, but I also found it curious that I got COVID because nobody had for many, many, many months. And we had, I knew many hundreds of people around the world who were taking a prophylactic, but when delta hit, that's exactly when we started to see breakthrough. So like, I knew it was Delta, I didn't think it was a failure of ivermectin. And so we're seeing much less breakthroughs now on a higher dose. Is it the right dose? I don't know. Could it be higher? Maybe. But we know it works as prevention.

**Dr. Mercola:**

Did you change the entire dosing regimen based on the introduction or experience with Delta?

**Dr. Pierre Kory:**

Yes, because of the breakthroughs, we just empirically chose twice a week instead of once a week.

**Dr. Mercola:**

And there is no test for Delta. I mean, it's just a SARS-CoV-2 test right that the actual genetic identification, but it does in like research lab.

**Dr. Pierre Kory:**

So 100%, there's no test for Delta. But when I say Delta, it's when in the places where they did do the genotype sequencing. Once the centers that were doing that were finding let like 60%, 70%, 80% of the samples were Delta, the rest of us assumed it was Delta because everywhere they were sequencing, they were finding that the vast majority were Delta. And so again, it's only specialized centers that were doing that. So that's where we look to, to find out what variant we're dealing with. Right, like so for instance, right now, if I take care of five COVIDs next week, will I know if they have Omicron or not? I have no idea until some center tells me that 80% of what we're seeing in the community is Omicron I won't know. Right? But with Delta was pretty clear. Most centers, most countries that were doing genotype sequencing, it was all Delta, you know, the Delta was just such a high. You know, so that's how we knew-

**Dr. Mercola:**

How many of these centers that do the genotype sequencing are there in the country? Is it dozens, is this-

**Dr. Pierre Kory:**

Zero idea. I know that in South Africa right now, from the reports that I read, it was a consortium of seven universities that were doing the sequencing, I-

**Dr. Mercola:**

Mostly research centers. It was mostly research.

**Dr. Pierre Kory:**

Yeah. Oh, absolutely. Absolutely. Yeah. No, you need specialized equipment and facilities and expertise. So-

**Dr. Mercola:**

I interrupted you. So the ivermectin for sure higher dose now since Delta is out,

**Dr. Pierre Kory:**

So we, you know, and we use higher doses for treatment, you know, because it has a dose response, the viral loads are higher, so we know we need higher, and the higher doses are effective. And that's another thing, right? With the trials, some of the trials are playing catch up. They literally use like low doses in better variants. They're using, like old doses in new variants. And anyway, so ivermectin for it's in early antiviral properties. We also use it later on, because it also has a whole host of anti-inflammatory properties. And so it actually is effective in multiple phases. Besides ivermectin, we also has that as an as an option, a drug called nitazoxanide. Now, here's the trick about nitazoxanide.

**Dr. Mercola:**

The tricky is saying it.

**Dr. Pierre Kory:**



Saying it is one challenge. The other challenge is that in the U.S., it's not really an option. It's absurdly expensive. It's very uncommon. Few places stock it like you won't find it in your Walgreens. It's an anti-protozoan, anti-parasitic medicine, very common in other continents, but not really in the U.S. And it also has a little bit of a Pharma Bro aspect to it. If you know what I mean by Pharma Bro me it has like this oddly inflated price like it's many, many hundreds of dollars, even the generic, and the brand name is like \$5,000 for a treatment course. Meanwhile, in Brazil, it's like \$3.50 for a treatment course. So in the U.S., it's not an option. But you know, interestingly, Joe, our protocols are followed like in many countries and continents around the world like in India, Ukraine and South America, a lot of people look – so nitazoxanide is an option there. And from my colleague Flávio A. Cadeiani has done a number of trials in Brazil. He's about as most published clinically, and in trials in COVID as anyone. His data from Brazil show that nitazoxanide and ivermectin are equally effective, equally effective as an early antiviral agent. And nitazoxanide is also known as an antiviral. In fact, it's standard of care for rotavirus in Brazil. So it's already an established antiviral medicine. And so what he says is that they're equally effective, and the combination are actually better than each one alone. So like if Brazil for someone sick, they'll use the combination. So those are the antiviral components, then we have medicines that have either antiviral or anti-inflammatory or a combination so like, melatonin, right? Zinc. Quercetin. And then obviously, for anticoagulants and we have aspirin, Vitamin D is critical, right? So we really want people to have normal vitamin D levels going into-

**Dr. Mercola:**

That's the ideal. You're trying to bring them up geraniol this everyone watching this? That's the take home message, check your vitamin D levels. If it's low, then go supplement now. Not when you get sick.

**Dr. Pierre Kory:**

Joe, can I ask you a question? Why isn't our federal government from the get go? Why didn't they tell every doctor in the land to make sure that the patients in their practice have adequate vitamin D levels?

**Dr. Mercola:**

Well, you know the answer. That was the same reason they discredited and disparage ivermectin. The same reason. It's a threat. I mean, it would literally have reduced, from my understanding of the literature, 70%, 80%, maybe even higher than 80%, of the morbidity and mortality from the disease if everyone had a vitamin D level over 40 nanograms per mL.

**Dr. Pierre Kory:**

No question, in fact that just this week, there was a study that came out huge database of patients where they looked at patients who their vitamin D levels before they got ill and during illness. And what they found was — they estimated they did the fancy statistical modeling logistic regression — they found that at 50 nanograms per milliliter, zero mortality. Anyone, if you go into this illness with a level of 50, they observed no deaths occur. And so, you know, and I asked you that question, obviously, I was being sort of sarcastic or facetious. I do know the answer. But I do have to point out the criminality of it because the federal government knows. They know the population knows that they know that vitamin D deficiency, especially in low-income minorities in the north of the country is ubiquitous, in nursing homes, right? What is vitamin D deficiency in nursing homes, they don't go out in the sun all the time. They don't have great diets. And so the idea that we didn't have a vitamin D protocol nationally is —

**Dr. Mercola:**

It's criminal.

**Dr. Pierre Kory:**

Literally, it's criminal. Criminal. So vitamin D is on our protocol

**Dr. Mercola:**

It's the only paper I've written this century, was a review of that evidence, published it last year in Nutrients. It's actually the most downloaded paper, the second most downloaded paper ever in the journal.

**Dr. Pierre Kory:**

So it's a big topic and I'm glad we actually I knew you were an expert and that you did that you'd written on it. And so I mean, that's a topic I'm sure near and dear to your heart as a physician and so simple.

**Dr. Mercola:**

So simple, so basic, and you don't even have to take a supplement if you live in Florida, you know, you I mean, I haven't swallowed vitamin D in over a decade. And I have levels over 50 so-

**Dr. Pierre Kory:**

Right. Right, right. So you know, and so the problem Joe is now let's talk about what it's like when you get sick. So like, for those who are low, once you get sick, obviously, it's going to be consumed a little bit and/or if you go into it low, how do you supplement? Because vitamin D3 in an acute illness? I've got to tell you, I am underwhelmed with its clinical impact.

**Dr. Mercola:**

Totally agree. I'm not impressed with the data either. It's not an intervention when you're sick, right? Absolutely. Horses out of the barn.

**Dr. Pierre Kory:**

So what we did, the positive studies that we've seen, although I'll mention a study that just came out this week, maybe I can share that with you because I just – Paul sent it to me the other day, but the positive treatment studies actually use either calcifediol or calcitriol. So we have another but that's prescription only not all the doctors are familiar with it. And so, you know, I, you know, if I were sick, I would want to take calcitriol if I had a low level or if I knew that my level was not, but—

**Dr. Mercola:**

What is that in your protocol?

**Dr. Pierre Kory:**

So yeah, we have – calcitriol is 0.25 micrograms. My colleague, Cadegiani in Brazil, he uses 0.5 micrograms of calcium.

**Dr. Mercola:**

As a dose IV? Micrograms per kilogram, or that's the-

**Dr. Pierre Kory:**

Just micrograms, and it's daily. That's the dose for calcitriol. And so-

**Dr. Mercola:**

That's parenteral, right? IM (intramuscular)?

**Dr. Pierre Kory:**

No, it's actually oral.

**Dr. Mercola:**

It's oral?

**Dr. Pierre Kory:**

Calcitriol was oral, I believe. Yes,

**Dr. Mercola:**

I thought it was parenteral.

**Dr. Pierre Kory:**

Yeah, I mean, the dialysis patients take it, you know, to supplement their vitamin E. So, anyway, we do try to have the more active forms of vitamin D in our protocol. We just saw a study which showed-

**Dr. Mercola:**

Let me just go back there. But calcitriol is the hydroxylated form. It's actually what is – yeah, it's what's measured, or is that no, is it? What is it?

**Dr. Pierre Kory:**

So calcitriol is, so if you do D<sub>3</sub>, to OH which is calcifediol and then calcitriol is the – so calcifediol is the immediate precursor to the active vitamin D calcitriol, is the active vitamin D. So we favor either of those to the vitamin D<sub>3</sub>, in order for it to [inaudible 01:02:51] in the active form, it's going to take too long, plus your conversion, metabolic pathways are diminished in illness, as well. And so I-

**Dr. Mercola:**

You might even have SNPs (single-nucleotide polymorphism) that diminish it too.

**Dr. Pierre Kory:**

Yeah, yeah. So. So yeah. So like you said, I mean, I think our point is, is exactly what it is, which is that is-

**Dr. Mercola:**

That is a very good distinction. And it is somehow escaped me that that the activated metabolites, which are available pharmacologically, if you're sick, that's probably the way to go. If you're-

**Dr. Pierre Kory:**

In the hospital, I give them calcitriol for sure. The active form, you know, it's immediately active doesn't even metabolize. And so it's, you know, it's working right there. We just saw a paper this week, which looked at a bunch of their protocol was it actually showed a mortality benefit. And I believe it was in hospital patients, and they used 100,000 units of D3, day one, and then 10,000 each subsequent day, and they showed an impact.

**Dr. Mercola:**

That would make sense.

**Dr. Pierre Kory:**

That's a very high dose. And so I think if-

**Dr. Mercola:**

But it's not dangerous, if they're low, assuming they measure their blood level, first.

**Dr. Pierre Kory:**

I have to read back on the paper, but so I just bring that up to say that there was one protocol that did use, you know, oral D3, and had an impact, but those were very high doses.

**Dr. Mercola:**

So even if you're using calcitriol, it's probably good to put them on orals, too, because eventually you want that to be the source and you do not want to be giving calcitriol every day.

**Dr. Pierre Kory:**

Right. And once you stop the calcitriol, right, you don't want to leave deficient. So anyway, those are the other elements on our protocol. And then we added in the last few months, we added what we call sort of a nutritional therapeutics because you know, there's those nice trials that show black cumin seed, which I was fascinated by that compound and then [inaudible 1:04:44] obviously, widely used throughout the world, especially not in the U.S. But it had all these pleiotropic effects, you know, immunomodulatory, meaning it helped the immune system while being anti-inflammatory. It also had antiviral properties and so it was almost like, "Wow, that sounds really good." And the trial in Pakistan, where they combined it with honey, who knew honey, like Paul and I were really maybe you know more about honey than, than we do. But we were really impressed with really the literature and the science behind honey, they they've been studying that in a number of sort of disease models and even viral models.

**Dr. Mercola:**

And so just to be clear, this is raw, unprocessed. It's not the honey you buy in most commercial grocery stores.

**Dr. Pierre Kory:**

And you think that because most people don't have raw unprocessed honey.

**Dr. Mercola:**

But you can easily get it at almost any health food store. It's so easy to get online. Even Amazon has it so. But yeah, the regular honey, purified refined honey, it's just like table sugar. It's not gonna do it.

**Dr. Pierre Kory:**

You don't think it's going to do – it's not going to have enough of the central compounds?

**Dr. Mercola:**

Yeah, there is magic in honey, there's no question. It's a health food.

**Dr. Pierre Kory:**

Now I'm now a little embarrassed because I don't know that we've specified that on our protocol. So I think maybe you brought-

**Dr. Mercola:**

Yeah, just get like Manuka honey is really good. I don't know if that was the one they use in the studies that you quoted.

**Dr. Pierre Kory:**

I have – that's what you want me to do now is I need to look back to see what I have to look back to see if they specified that it was, you know, raw, natural honey. My guess is that you're probably correct. That's what they use. So I have to look back.

**Dr. Mercola:**

Yeah. Otherwise, it doesn't make sense.

**Dr. Pierre Kory:**

Yeah. And then but here's the other important thing. So those are like, a kind of our mainstay. Now here's, here's, here's the magic or the art of medicine, right? So if I have a 30-year-old, who's day one, you know, just had his fever last night. Let's say he got tested today, or, you know, his brother or his mom had COVID this week. So you know, it's COVID, flat out 100%. And it's day one, he's young and healthy. You know, ivermectin alone probably will get them better within a couple of days. And, you know, end of story, no problem. The challenge is, and I find this odd that we're this far in the pandemic, I'm still meeting patients who fall ill and think it's a cold. I don't know if you've seen it, but like, I have seen rather smart people be like, "Oh, I just like you know, one of my colds," and then suddenly they get a little bit sick, a little bit sick, and they find it's actually COVID. And so sometimes I'm meeting patients who are day three, four, five into disease, they haven't really gotten adequate treatment. And there, I have to use more of the protocol elements, right? And so we have that first line, which I said, you know, it's like ivermectin with a nutritional, you know – quercetin, melatonin, zinc, vitamin D, aspirin. Then we have second line and for me, so there's an SSRI (selective serotonin reuptake inhibitors) called fluvoxamine, which has actually been shown to be very helpful.

**Dr. Mercola:**

Through Steve Kirsch's research, right?

**Dr. Pierre Kory:**

Oh, yes, Steve was an early proponent of it, because he, you know, he was he started an organization called the Early Treatment Fund. And as soon as he was aware of the early efficacy around fluvoxamine, he helps fund some of the studies and he helped highlight it. So he's been a real champion for a lot of important things in the pandemic. So fluvoxamine is kind of his baby and, and you know, what, the studies continue to pan out. And so, and even clinically, some of my colleagues who incorporated the protocol with ivermectin and fluvoxamine, they found that they saw much less treatment failures. I mean, I've ranked as highly effective, but it doesn't cure everybody, right? They saw, you know, an occasional treatment fail and they said it really disappeared once they use the combo. So for some, the second line that you would add, for someone older or more advanced disease, you know, more comorbidities, obese, diabetes, like I tend to throw the kitchen sink at those folks. I try to use as many elements in the protocol. So they're all at either fluvoxamine or the, for me, the game changer now is anti-androgens. So if you've seen our protocol, we use spironolactone, which is a diuretic, right, a potassium-sparing diuretic, but it has, at doses above 100 milligrams a day, it has potent anti-androgen properties, as well as dutasteride, right, which is a 5-alpha reductase inhibitor, which also suppresses testosterone. And the reason why is that the androgens seem to be a huge potentiator of this illness, not only in terms of driving viral replication, but also in potentiating inflammation. And so if you can suppress the engine, this applies to men and women. Probably bigger impacts in men, of course.

**Dr. Mercola:**

Endogenously higher levels, of course.

**Dr. Pierre Kory:**

Obviously, exactly. But, but it's not to say that it's not helpful in women, right? Women also have androgens and so the trials on that are really, really potent, the ones coming out of Brazil, observational, randomized and so we have an anti-androgen aspect. So I've been using that in outpatients. Some of my sick or older or more advanced disease patients, I'll add that on pretty quick. And so I've had some patients on ivermectin, fluvoxamine, dutasteride, spironolactone as like, the sort of mainstay of the antiviral, anti-inflammatory and just so for your audience if they're geeky, and they want to know, there's an endo-enzyme called TMPRSS2. And that's the enzyme that essentially cleaves the spike protein and allows it to bind to the cell and enter. And so if you block that enzyme, you basically prevent viral entry and replication. And it's the reason



why men do worse with COVID. Men between the ages of 40 to 50 are six times as likely as women to die between the ages of 30 and 50. They're twice as likely to go to the hospital. And in the spring of 2021, one of the first reports that thought that there might be an androgen correction, it came out of Spain, but this group in an ICU they noticed one day, as they were examining their patient, they noticed that the vast majority of everybody on a ventilator in their ICU was bald, right? So alopecia, right? Baldness is a marker for the more higher levels of the more potent form of testosterone, right. And so that, you know, we've seen the gender disparity of COVID for a long time, and so attacking that aspect of-

**Dr. Mercola:**

Because of the androgen itself or the androgen's effect on the-

**Dr. Pierre Kory:**

Exactly. It's the latter. So TMPRSS2 is almost totally regulated by androgens. You suppress the androgen, you suppress the activity of TMPRSS2, which suppresses the ability of the virus to actually enter the cell. And so literally, it's an androgen-regulated enzyme. And so that's a really important pathway. And what's nice is spironolactone. Super cheap use for decades. Even women use it for parasitism or alopecia, it's used in a lot of places. And so you can use these things in outpatients in women and men.

**Dr. Mercola:**

Perfect. So do you integrate vitamin C, ascorbic acid, into the protocol?

**Dr. Pierre Kory:**

We do. So we don't have very high dose we use oral said is in our protocol. I don't think it has a as big a benefit as I would like. And I think it's from what I'm understanding is that the way in which it works as an outpatient is maybe not due to the direct actions of vitamin C, it may not be due to those the concentrations of vitamin C that you're reaching, because remember oral vitamin C has limitations and how much you can absorb. It has rather modest concentrations you can reach but we have a colleague in our circle who is an expert at the microbiome, and what she has found is that one of the bacteria, which is most protective, and most predictive of a good prognosis in several diseases, as well as COVID is Bifidobacterium. I don't know if you're aware of it. But oral vitamin C may be working by increasing the population of Bifidobacterium. And so it might have like a non-concentration-dependent effect like that it works through the microbiome, apparently, it's a big potentiator of that protective bacteria in the microbiome. So well, I find that fascinating.

**Dr. Mercola:**

Yeah, it is. And now, there is a differentiation there because you can use – there's different types of vitamin C, the conventional type, which is almost all the oral supplements, and then there's a liposomal. Liposomal you can use pretty high doses and concentrations because you reach after about 20 grams per day, almost everyone has loose stools. And for many people, it's half that dose, or even 5 grams a day. So you can get to pretty high doses with using liposomals. And reach doses that are almost very comparable to intravenous.

**Dr. Pierre Kory 1:13:54**

And hold on, you're saying doses do you mean concentrations in the blood? Because I wish you could share some papers with that. Because when I looked into liposomal, I was like underwhelmed with the actual blood concentrations reached. I didn't think they were approximately IV-like.

**Dr. Mercola 1:14:13**

Well you have to take more, you have to take more of them.

**Dr. Pierre Kory 1:14:15**

I mean, probably frequently, like every four hours or something or, or every-

**Dr. Mercola 1:14:19**

Every hour even, you know, you could take a bottle a day, you know, and it's still less than probably one in intravenous. Oh, of course. So yeah, but I mean, it's not something you would recommend routinely. And you mentioned the issue some physicians have with kidney stones and that is there and then part of the reason is one of the metabolic byproducts of ascorbic acid is oxalate. And if you have a lot of oxalate endogenously or you have high calcium levels, calcium oxalate stones are real and it can increase it but for normal doses, it's not an issue. It has to be over a gram a day.

**Dr. Pierre Kory 1:14:52**

And also for short term, Joe, right. So like, right, we're not going to get oxalate or people who like take vitamin C like chronically at high end doses for long duration. Like if you're acutely ill, and you start taking these high doses for five, 10 days, I don't think you're going to run into

oxalate problems. I don't know. But I don't think that that's been described really for short term. Is that correct?

**Dr. Mercola:**

Yeah, yeah. So one of the ways that vitamin C works, least speculated, is that it breaks down to hydrogen peroxide and hydrogen peroxide probably has some signaling capacity, but also may be directly toxic to the viral pathogens. So that's the least speculated mechanism that I'm aware of. So that's why I integrate nebulized peroxide, and I understand I'm sure you've heard of it but obviously, there's no well published trials, anecdotal trials that are published, but nothing, you know, like the standard of care would require.

**Dr. Pierre Kory:**

Exactly. And so yeah, that's, that's why we struggle with some of that stuff. So sorry, that's our outpatient protocol has those kind of, you know, first, second line, third line, the androgens, I find itself and then obviously, in like, almost like your friend's case, you know, if someone really hasn't responded, or they've gotten too late, their day seven or eight, they're getting sick, or as soon as the pulmonary phase develops. So as soon as like someone's getting appreciable shortness of breath, and I've ruled out a pulmonary embolus, or they have an abnormal X ray or they require oxygen, corticosteroids must be started then. I know some doctors who started a little earlier like day five, whether or not you're on oxygen or having a lung problem. And I think that's probably okay, as long as it's paired with like ivermectin, nitazoxanide or even hydroxychloroquine. Again, hydroxychloroquine is another drug that got buried in corruption. You know, it was a drug that worked. And there was a massive systematic attack on it with essentially fraudulent trials, papers published. I mean, that's a whole other saga that, you know, and that's what that was the repurposed drug in 2020 that got attacked. Ivermectin is the repurposed drug in 2021. And so, you know, Joe, the one thing I want to say I try to say, wherever I am, is that ivermectin and hydroxychloroquine are just the latest in a long line of repurposed drugs that gets attacked by the pharmaceutical industry, you know, repurposed drugs – cheap, available, off-patent solutions to disease are anathema-

**Dr. Mercola:**

Because they are a threat, they're a threat to the bottom line.

**Dr. Pierre Kory:**

They get attacked and discredited. And if you if you bide by – if you are an advocate for cheap, safe, you know, decades-old solution to a disease, you get discredited as a fringe quack or whatever. And it's-

**Dr. Mercola:**

I don't recall it that you mentioned zinc, I mean, in the protocol.

**Dr. Pierre Kory:**

I did.

**Dr. Mercola:**

You did? Okay. So the zinc – is there attention to – paying attention to the timing of the zinc? Is it taken with quercetin or with the ivermectin, or hydroxychloroquine? I don't know that ivermectin works with zinc-

**Dr. Pierre Kory:**

We don't, we don't have hydroxychloroquine on our protocol, although we probably should as an option, although that's as restricted now as ivermectin, right. That's a whole, other issue. I mean, they're, you know, but, but no, we don't have we don't have a timing with the ivermectin or with the quercetin.

**Dr. Mercola:**

The mechanism is, seems to drive the zinc into the cells is how it works with hydroxychloroquine.

**Dr. Pierre Kory:**

And hydroxychloroquine, yes. But we don't have hydroxychloroquine on our protocol. So although we we'd sort of in our in the supporting. So there's a document what we call the Bible in the FLCCC. And that's Paul. So Paul is the author of the Bible. And so if you look at our website, and you go to like Protocols, under Protocols, you'll see, I think we call it “The Complete Guide to the Care of the COVID Patient.” That's really Paul's baby. I mean, Paul started that, like from before the first patient he ever saw with COVID. And he just started to put together the data and his understanding and papers. And Paul is like the most well-read guy on COVID that I think you can imagine, he really literally reads dozens of papers a day. I mean, maybe not dozens, but at least a dozen. And so he has really formulated and he's focused very much on therapeutics. And so in that Bible, we have a number of therapeutic options that are not in our protocols, right? Because you can't put 35 things on your protocol, but there are options to

consider. And so in the Bible, we have hydroxychloroquine, but we don't have it upfront in the protocol.

**Dr. Mercola:**

Okay. Yeah, we seem to be if you're going to use it with the quercetin and it might be better if it was taken with the zinc at the same time. Yeah, because you're going to have higher zinc levels, and that's how it works. So that's the ticket concurrently. So it's great that you put this compile this and you and your group, but I'm wondering what your recommendations are to identify a clinician who can prescribe these, because many of the therapies that you're mentioning are prescription drugs. So obviously, you can't go out to the store and buy them without a prescription. So how do how does someone identify a clinician they can work with and connect and have these prescribed for them?

**Dr. Pierre Kory:**

So we don't have the perfect answer that but we have a reasonable answer. So we – many physicians have reached out to us thanked us for their protocols said that they use our protocols, many of them have telehealth. And so we try to keep a list of those that treat early. And again, they might not follow ours religiously. But like we talked about earlier, there's many different ways of treating this disease early, there's a number of different compounds. But then there's also a website that we borrow, which has like a directory of telehealth providers for COVID. And they all have early treatment protocols. And they're in every state. And so and some of them, you know, are practices that span the country. Now, during big surges, many of them were just so overwhelmed with requests for treatment that I think some patients were ill-served. And you know, this is where the stuff gets real said Joe, right, talking about, you know, COVID in this country, right, is that the problem is I don't think that I can get anyone, everyone to a doctor that needs it or wants it, right? Like you said, it's hard. But if you go to our website, there, we have a quick link, and you can find a physician and there's directories in each state, some are multi-state, and you can try them. And I think a number of them are growing and maturing. And so for, let's say, we have a bad surge this winter. My hopes are that these telehealth providers can meet the demand.

**Dr. Mercola:**

Yeah. Oh, thanks. That's a good, helpful resource. But you know, you mentioned it's sad, and yes, it's sad indeed that anyone should not have access to these successful interventions. But what's even sadder in my perspective is the fact that they're giving this jab to 5-to-11-year-olds, they're killing kids. They're killing kids. And I don't know, you probably have never seen a child with this illness because it's such a rare disease.

**Dr. Pierre Kory:**

No.

**Dr. Mercola:**

Ever seen a child with COVID?

**Dr. Pierre Kory**

No. A healthy child from 5 to 11. No. [crosstalk 01:22:27]

**Dr. Mercola:**

Yeah. So but they're given the jab and they're going to be seeing the consequences of this intervention soon.

**Dr. Pierre Kory:**

So you know, I told you, before we came on that I'm right now in Indianapolis, because I'm speaking at a conference, it's a global COVID summit. It's an outgrowth of that physician's declaration. That original declaration, which you sign, right, which is really just, you know, trying to reclaim the autonomy and expertise of the physician to, you know, to try to avoid restriction allow us to do what we do. We also, since then, stipulated three other principles, which we have well over 10,000 physicians across the globe that sign on, and those principles are, number one, like I just said, early treatment, and the autonomy of the physician should not be restricted. Number two, natural immunity must be recognized as actually equal or superior to vaccination. The idea that we're vaccinating those naturally immune. And then the third absurdity, which is healthy children should not receive these vaccines. There's just no rationale. The data does not support it, you're not protecting the child. In fact, we know the side effects in youth. And you know, you, Joe, how many countries now have actually outlawed one or multiple of these vaccines in young people, some countries in anyone under 30? Right. So the Scandinavian countries, they're not going to vaccinate the children because of the toxicity. And yet, now we have states in this country which are mandating it for healthy children. Again, healthy children. It's impossible to find almost impossible to find a death of a healthy child from COVID.

**Dr. Mercola:**

I think RFK (Robert F. Kennedy Jr.) when he perused the literature, he said there's never been a reported death of COVID in a child who was healthy. [crosstalk 01:24:27] it really is coexisting comorbidities.

**Dr. Pierre Kory:**

I agree with him, because in the, in the large database studies that I've seen published, so I think Makary, Marty Makary of MedPage. He did 42,000 child database, they didn't find one. And in some of the population studies that came out of other countries, there's one recently in Germany, they didn't find one like they could not find a case of a death in a healthy child.

**Dr. Mercola:**

And yet, we've got Pfizer making these commercials and brainwashing kids into believing they were superheroes if they get this damn jab.

**Dr. Pierre Kory:**

I used to, not that I don't get upset anymore, but I used to like literally start losing my temper, not foaming, but I just went when I think of the non-scientific policies that we have been subjected. And, you know, it's one thing to start a policy in this pandemic, because you think it makes sense or has good rationale. But the problem is we're not revisiting them. We're not reassessing the data and saying, "You know what, maybe we should do it differently based on this data," it's like, we're sticking to those first in things. And then the nonscientific objections they're doubling down on. So they want to vaccinate kids, even though the data is just increasing. So vaccinate kids in the naturally immune, we have just buried in data showing neither of those categories of our citizens need a vaccine, and yet they're doing it and you you're aware of the studies showing that the risk of hospitalization from the vaccine is higher than from the disease? How can you support that?

**Dr. Mercola:**

You can't, I mean, if you're rational, I guess you can support if you are really motivated to increase the drug company profits, and then it makes it then makes perfect sense. It's totally justifiable.

**Dr. Pierre Kory:**

You know, the one thing that they do you know, that puts an out which I'll entertain, I'll listen to any rationale. So one is that, they want to argue that if you vaccinate the kids, you'll decrease

transmission, and it's more of a population-based benefit. The problem is the data for that isn't there either. So although yes, kids can transmit it to parents, that's not a predominant mode of spread, that kids don't have high viral loads for a number of reasons. They don't have as many H2 receptors, they have generally much milder disease. And so they're not a huge vector to not only in between themselves, but to parents. And so why you would go after them the lowest, or their teachers. And so, again, it goes back to so many different things. It's not just about the vaccines or the kids, it's that I find that there's non-scientific objectives. So the prohibitions around hydroxychloroquine and ivermectin, those are not scientific objectives. That is some other objective. And you can only argue that they're financial.

**Dr. Mercola:**

Yeah. All right. Well, I couldn't agree more. I really, deeply appreciate your insights and time that you share with us and helping people understand some of the practical resources out there to address this illness they come in contact with it, or someone they love does. Because it's an unfortunate reality that we're all confronted with nowadays. So I hope your path and journey to better employment is successful. And I'm sure you're wanted somewhere where you can really you got a load of good solid information and a good head on your shoulder. So I'm trying to help someone out.

**Dr. Pierre Kory:**

So I appreciate I might work for myself. So we'll see. Yeah.

**Dr. Mercola:**

Alright, so if anyone I mean, obviously, maybe vaguely just give us the FLCC. Three C's?

**Dr. Pierre Kory:**

It's three C's. So Paul Merrick oftentimes misses the third C, and I yell at him, mercilessly, but it's, the best way to get to us is FLCCC.net. So that's the short form of our website. FLCCC.net. Again, we have lots of information on there. We have links to different papers that have come out. And then obviously, our protocols are there. And so—

**Dr. Mercola 1:28:45**

and then FL isn't short for Florida, it's short for frontline,



**Dr. Pierre Kory:**

Frontline COVID-19 Critical Care Alliance. So that's, that's us.

**Dr. Mercola:**

Okay. All right. Well, thanks for everything you're doing. And I'll be I'll be in touch with you on some separate issues on vitamin C. And then the other event that we talked about.

**Dr. Pierre Kory:**

Yeah, absolutely. It's a pleasure talking to Joe. I really appreciate it.

**Dr. Mercola:**

Well, thanks a lot.