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FOR IMMEDIATE RELEASE
Orthomolecular Medicine News Service, Feb 21, 2020

Three Intravenous Vitamin C Research Studies Approved for Treating COVID-19

by Andrew W. Saul, Editor

(OMNS February 21, 2020) Intravenous vitamin C is already being employed in China against COVID-19 coronavirus. I am receiving regular updates because I am part of the Medical and Scientific Advisory Board to the International Intravenous Vitamin C China Epidemic Medical Support Team. Its director is Richard Z. Cheng, MD, PhD; associate director is Hong Zhang, PhD. Among other team members are Qi Chen, PhD (Associate Professor, Kansas University Medical School); Jeanne Drisko, MD (Professor, University of Kansas Medical School); Thomas E. Levy, MD, JD; and Atsuo Yanagisawa, MD, PhD. (Professor, Kyorin University, Tokyo). To read the treatment protocol information in English: <http://orthomolecular.org/resources/omns/v16n07.shtml> (Protocol in Chinese at http://www.doctoryourself.com/Coronavirus_Chinese_IV_C_Protocol.pdf)

Direct report from China

OMNS Chinese edition editor Dr. Richard Cheng is reporting from China about the first approved study of 12,000 to 24,000 mg/day of vitamin C by IV. The doctor also specifically calls for immediate use of vitamin C for prevention of coronavirus (COVID-19).
<https://www.youtube.com/watch?v=TC0SO9KDG7U>

A second clinical trial of intravenous vitamin C was announced in China on Feb. 13th. In this second study, says Dr. Cheng, *"They plan to give 6,000 mg/day and 12,000 mg/day per day for moderate and severe cases. We are also communicating with other hospitals about starting more intravenous vitamin C clinical studies. We would like to see oral vitamin C included in these studies, as the oral forms can be applied to more patients and at home."* Additional information at <http://orthomolecular.org/resources/omns/v16n11.shtml>

And on Feb 21, 2020, announcement has been made of a third research trial now approved for intravenous vitamin C for COVID-19. <https://www.youtube.com/watch?v=VMDX0RSDp1k&feature=youtu.be>

Dr. Cheng, who is a US board-certified specialist in anti-aging medicine, adds: *"Vitamin C is very promising for prevention, and especially important to treat dying patients when there is no better treatment. Over 2,000 people have died of the COIV-19 outbreak and yet I have not seen or heard large dose intravenous vitamin C being used in any of the cases. The current sole focus on vaccine and specific antiviral drugs for epidemics is misplaced."*

He adds that: *"Early and sufficiently large doses of intravenous vitamin C are critical. Vitamin C is not only a prototypical antioxidant, but also involved in virus killing and prevention of viral replication. The significance of large dose intravenous vitamin C is not just at antiviral level. It is acute respiratory distress syndrome (ARDS) that kills most people from coronaviral pandemics (SARS, MERS and now NCP). ARDS is a common final pathway leading to death."*

"We therefore call for a worldwide discussion and debate on this topic."

News of vitamin C research for COVID-19 is being actively suppressed

Anyone saying that vitamin therapy can stop coronavirus is already being labeled as "promoting false information" and promulgating "fake news." Even the sharing of verifiable news, and direct quotes from credentialed medical professionals, is being restricted or blocked on social media. You can see sequential examples of this phenomenon at my Facebook page <https://www.facebook.com/themegavitaminman>.

Indeed, the World Health Organization (WHO) has, literally, met with Google and Facebook and other media giants to stop the spread of what they declare to be wrong information.

https://www.cnn.com/amp/2020/02/14/facebook-google-amazon-met-with-who-to-talk-coronavirus-misinformation.html?_twitter_impression=true

Physician-directed, hospital-based administration of intravenous vitamin C has been marginalized or discredited. Scientific debate over COVID-19 appears to not be allowed.

Ironically, Facebook, blocking any significant users' sharing of the news of approved vitamin therapy research, is itself blocked in China by the Chinese government. As for the internet, yes, China has it. And yes, it is censored. But, significantly, the Chinese government has not blocked this real news on how intravenous vitamin C will save lives in the COVID-19 epidemic. Here is the protocol as published in Chinese: <http://orthomolecular.org/resources/omns/v16n11-chi.shtml>

Medical orthodoxy obsessively focuses on searching for a vaccine and/or drug for coronavirus COVID-19). While they are looking for what would be fabulously profitable approaches, we have with vitamin C an existing, plausible, clinically demonstrated method to treat what coronavirus patients die from: severe acute respiratory syndrome, or pneumonia.

And it is available right now.

To read all Orthomolecular Medicine News Service Reports on COVID coronavirus and intravenous vitamin C:

Vol. 16, No. 04	January 26, 2020	Vitamin C Protects Against Coronavirus
Vol. 16, No. 06	January 30, 2020	Nutritional Treatment of Coronavirus
Vol. 16, No. 07	February 2, 2020	Hospital-based Intravenous Vitamin C Treatment for Coronavirus and Related Illnesses
Vol. 16, No. 09	February 10, 2020	VITAMIN C AND ITS APPLICATION TO THE TREATMENT OF nCoV CORONAVIRUS: How Vitamin C Reduces Severity and Deaths from Serious Viral Respiratory Diseases
Vol. 16, No. 10	February 13, 2020	Coronavirus Patients in China to be Treated with High-Dose Vitamin C
Vol. 16, No. 11	February 16, 2020	Early Large Dose Intravenous Vitamin C is the Treatment of Choice for 2019-nCov Pneumonia

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FOR IMMEDIATE RELEASE
Orthomolecular Medicine News Service, Jan 26, 2020

Vitamin C Protects Against Coronavirus

by Andrew W. Saul, Editor

(OMNS January 26, 2020) The coronavirus pandemic can be dramatically slowed, or stopped, with the immediate widespread use of high doses of vitamin C. Physicians have demonstrated the powerful antiviral action of vitamin C for decades. There has been a lack of media coverage of this effective and successful approach against viruses in general, and coronavirus in particular.

It is very important to maximize the body's anti-oxidative capacity and natural immunity to prevent and minimize symptoms when a virus attacks the human body. The host environment is crucial. Preventing is obviously easier than treating severe illness. But treat serious illness seriously. Do not hesitate to seek medical attention. It is not an either-or choice. Vitamin C can be used right along with medicines when they are indicated.

"I have not seen any flu yet that was not cured or markedly ameliorated by massive doses of vitamin C."

(Robert F. Cathcart, MD)

The physicians of the *Orthomolecular Medicine News Service* and the International Society for Orthomolecular Medicine urge a nutrient-based method to prevent or minimize symptoms for future viral infection. The following inexpensive supplemental levels are recommended for adults; for children reduce these in proportion to body weight:

Vitamin C: 3,000 milligrams (or more) daily, in divided doses.

Vitamin D3: 2,000 International Units daily. (Start with 5,000 IU/day for two weeks, then reduce to 2,000)

Magnesium: 400 mg daily (in citrate, malate, chelate, or chloride form)

Zinc: 20 mg daily

Selenium: 100 mcg (micrograms) daily

Vitamin C [1], Vitamin D [2], magnesium [3], zinc [4], and selenium [5] have been shown to strengthen the immune system against viruses.

The basis for using high doses of vitamin C to prevent and combat virus-caused illness may be traced back to vitamin C's early success against polio, first reported in the late 1940s.[6] Many people are unaware, even surprised, to learn this. Further clinical evidence built up over the decades, leading to an anti-virus protocol published in 1980.[7]

It is important to remember that **preventing and treating respiratory infections with large amounts of vitamin C is well established.** Those who believe that vitamin C generally has merit, but massive doses are ineffective or somehow harmful, will do well to read the original papers for themselves. To dismiss the work of these doctors simply because they had success so long ago sidesteps a more important question: Why has the benefit of their clinical experience not been presented to the public by responsible governmental authorities, especially in the face of a viral pandemic?

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FOR IMMEDIATE RELEASE
Orthomolecular Medicine News Service, Jan 30, 2020

Nutritional Treatment of Coronavirus

by Andrew W. Saul, Editor

(OMNS January 30, 2020) Abundant clinical evidence confirms vitamin C's powerful antiviral effect when used in sufficient quantity. Treating influenza with very large amounts of vitamin C is not a new idea at all. Frederick R. Klenner, MD, and Robert F. Cathcart, MD, successfully used this approach for decades. Frequent oral dosing with vitamin C sufficient to reach a daily bowel tolerance limit will work for most persons. Intravenous vitamin C is indicated for the most serious cases.

Bowel tolerance levels of vitamin C, taken as divided doses all throughout the day, are a clinically proven antiviral without equal. Vitamin C can be used alone or right along with medicines if one so chooses.

"Some physicians would stand by and see their patients die rather than use ascorbic acid. Vitamin C should be given to the patient while the doctors ponder the diagnosis." (Frederick R. Klenner, MD, chest specialist)

Dr. Robert Cathcart advocated treating influenza with up to 150,000 milligrams of vitamin C daily, often intravenously. You and I can, to some extent, simulate a 24 hour IV of vitamin C by taking it by mouth very, very often. When I had pneumonia, it took 2,000 mg of vitamin C every six minutes, by the clock, to get me to saturation. My oral daily dose was over 100,000 mg. Fever, cough and other symptoms were reduced in hours; complete recovery took just a few days. That is performance at least as good as any pharmaceutical will give, and the vitamin is both safer and cheaper. Many physicians consider high doses of vitamin C to be so powerful an antiviral that it may be ranked as a functional immunization for a variety influenza strains. [1]

Dr. Cathcart writes:

"The sicker a person was, the more ascorbic acid they would tolerate orally without it causing diarrhea. In a person with an otherwise normal GI tract when they were well, would tolerate 5 to 15 grams of ascorbic acid orally in divided doses without diarrhea. With a mild cold 30 to 60 grams; with a bad cold, 100 grams; with a flu, 150 grams; and with mononucleosis, viral pneumonia, etc. 200 grams or more of ascorbic acid would be tolerated orally without diarrhea. The process of finding what dose will cause diarrhea and will eliminate the acute symptoms, I call titrating to bowel tolerance.

"The ascorbate effect is a threshold effect. Symptoms are usually neutralized when a dose of about 90% or more of bowel tolerance is reached with oral ascorbic acid. Intravenous sodium ascorbate is about 2½ times more powerful than ascorbic acid by mouth and since for all practical purposes huge doses of sodium ascorbate are non-toxic, whatever dose necessary to eliminate free radical driven symptoms should be given."

The coronavirus, in acute infections, may be expected to be just as susceptible to vitamin C as all of the other viruses against which it has been proven to be extremely effective. There has never been a documented situation in which sufficiently high dosing with vitamin C has been unable to neutralize or kill any virus against which it has been tested.

Even the common cold is a coronavirus. A "new" opportunistic virus is a not a big surprise. History is full of them.

Flu Pandemic of 1919-1920

About 10 million soldiers were killed in World War I (1914-1918), charging machine guns and getting mowed down month after month. There were nearly a million casualties at the Somme and another million at Verdun. A terrible slaughter went on for four years. Yet, in just the two years following the war, over 20 million people died from influenza. That is more than twice as many deaths from the flu in one-half the time it took the machine guns.

With a century's worth of accumulated scientific hindsight, we must today ask this: Was a lack of vaccinations really the cause of those flu deaths, or was it really wartime stress, and especially war-induced malnutrition, that set the stage in 1918? And now, once again, we have an alarming and rather similar scenario: between nutrient-poor processed convenience foods, McNothing meals and TV news scare stories, we have the basic ingredients for an epidemic.

Influenza is a serious disease, and historically, has been the Reaper's scythe. There is no way to make light of that. It warrants a closer look at how the medical profession and government have approached different types of influenza.

Swine Flu

In the mid-1970s, there was the colossal Swine Flu panic. Here is what the government of the United States said about the infamous Swine Flu vaccine, in a 1976 mass-distributed FDA Consumer Memo on the subject:

"Some minor side effects - tenderness in the arm, low fever, tiredness - will occur in less than 4% of (vaccinated) adults. Serious reactions from flu vaccines are very rare."

Many will remember the very numerous and very serious side effects of Swine Flu vaccine that forced the federal immunization program to a halt. So much for blanket claims of safety.

As far as being essential, in the same memo the FDA said this of the same vaccine:

"Question: What can be done to prevent an epidemic? Answer: The only preventive action we can take is to develop a vaccine to immunize the public against the virus. This will prevent the virus from spreading."

This was seen to be totally false. The public immunization program for Swine Flu was abruptly halted and still there was no epidemic. If vaccination were the only defense, one might expect that tens of millions of Americans would have been struck down with the Swine Flu, for a large percentage of the population of the U.S. was not vaccinated.

"Vaccines are being used as an ideological weapon. What you see every year as the flu is caused by 200 or 300 different agents with a vaccine against two of them. That is simply nonsense." (Tom Jefferson, MD, epidemiologist) [2]

Bird Flu

Robert F. Cathcart, MD, writes: *"Treatment of the Bird Flu with massive doses of ascorbate would be the same as any other flu except that the severity of the disease indicates that it may take unusually massive doses of ascorbic acid orally or even intravenous sodium ascorbate. (Why the dose needed is somewhat proportional to the severity of the disease being treated is discussed in my paper published in 1981, Titrating to Bowel Tolerance, Anascorbemia, and Acute Induced Scurvy.) I have not seen any flu yet that was not cured or markedly ameliorated by massive doses of vitamin C but it is possible that the bird flu may require even higher doses such as 150 to 300 grams a day. Additionally, this flu could be primarily respiratory. This means that hospitalization might be necessary. If massive doses of ascorbate are not used, they may not be adequate. Most hospitals will not allow adequate doses of ascorbate to be given.*

"Initial oral doses of ascorbic acid should also be massive. I would suggest like 12 grams every 15 minutes until diarrhea is produced. Then, however, doses should be reduced but not much. Listen to your body. If there are many symptoms, keep taking doses that cause a little diarrhea. You do not want constant runs because it is the amount you absorb that is important, not the amount you put in your mouth." [1,3]

BBC - 9 April 2006: *"The chances of bird flu virus mutating into a form that spreads between humans are 'very low,' the government's chief scientific adviser has said. Sir David King said any suggestion a global flu pandemic in humans was inevitable was 'totally misleading.'" [4]*

SARS

The coronavirus outbreak in China seems to be due to a virus similar to SARS (Severe Acute Respiratory Syndrome), which was also a coronavirus. You may remember SARS from 2002. I most certainly do, as I was in Toronto, Canada at the time, smack in the middle of it. I took a lot of vitamin C preventively and had zero symptoms. [5]

"The common cold is a coronavirus, and SARS is a coronavirus, so they are the same viral type." (David Jenkins, MD, Professor of Medicine and Nutritional Science, University of Toronto)

Waiting for a vaccine?

"We have set up a situation where a fear is created, and then we try to create the treatment for this fear. The public gets the idea that the flu is going to kill them and the vaccine will save them. Neither is true." (Marc Siegel, MD, author of *False Alarm: The Truth About the Epidemic of Fear*) [2]

Robert F. Cathcart: *"All this talk about a vaccine is too late; a waste of time now, especially when we know how to cure the disease already. Every flu I have seen so far (since 1970) has been cured or ameliorated by massive doses of ascorbate. All of these diseases kill by way of free radicals. These free radicals are easily eliminated by massive doses of ascorbate. This is a matter of chemistry, not medicine. The time has come to stop hiding our ability to treat these acute infectious diseases with massive doses of ascorbate."*

"Ideally, however, in serious cases this disease should be treated first with at least 180 grams or more of sodium ascorbate intravenously every 24 hours running constantly until the fever is broken and most of the symptoms are ameliorated. If after a few hours that rate of administration does not have an obvious ameliorating effect, the rate should be increased." [6]

What dosage?

Vitamin C fights all types of viruses. Although the dose should truly be high, even a low supplemental amount of vitamin C saves lives. This is very important for those with low incomes and few treatment options. For example, in one well-controlled, randomized study, just 200 mg/day vitamin C given to the elderly resulted in improvement in respiratory symptoms in the most severely ill, hospitalized patients. And there were 80% fewer deaths in the vitamin C group. [7]

But to best build up our immune systems, we need to employ large, orthomolecular doses of several vital nutrients. The physicians on the *Orthomolecular Medicine News Service* review board specifically recommend at least 3,000 milligrams (or more) of vitamin C daily, in divided doses. Vitamin C empowers the immune system and can directly denature many viruses. It can be taken as ascorbic acid (which is sour like vinegar), either in capsules or as crystals dissolved in water or juice. It can also be taken as sodium ascorbate, which is non-acidic. To be most effective, it should be taken to bowel tolerance. This means taking high doses several (or many) times each day. See the references below for more information.

Nebulized hydrogen peroxide

Thomas E. Levy, MD: *"Viral syndromes start or are strongly supported by ongoing viral replication in the naso- and oropharynx. When appropriate agents are nebulized (into a fine spray) and this viral presence is quickly eliminated, the rest of the body "mops up" quite nicely the rest of the viral presence. The worst viral infections are continually fed and sustained by the viral growth in the pharynx. Probably the best and most accessible agent to nebulize would be 3% hydrogen peroxide for 15 to 30 minutes several times daily."* [10]

An example of successful treatment by ascorbate:

"Chikungunya is a viral illness characterized by severe joint pains, which may persist for months to years. There is no effective treatment for this disease. We treated 56 patients with moderate to severe persistent pains with a single infusion of ascorbic acid ranging from 25-50 grams and hydrogen peroxide (3 cc of a 3% solution) from July to October 2014. Patients were asked about their pain using the Verbal Numerical Rating Scale-11 immediately before and after treatment. The mean Pain Score before and after treatment was 8 and 2 respectively (60%) ($p < 0.001$); and 5 patients (9%) had a Pain Score of 0. The use of intravenous ascorbic acid and hydrogen peroxide resulted in a statistically significant reduction of pain in patients with moderate to severe pain from the Chikungunya virus immediately after treatment." [11]

Available evidence indicates that supplementation with multiple micronutrients with immune-supporting roles may modulate immune function and reduce the risk of infection. Micronutrients with the strongest evidence for immune support are vitamins C and D and zinc. [8,9]

Additional recommended nutrients

Magnesium: 400 mg daily (in citrate, malate, chelate, or chloride form). Many people are deficient in magnesium, because modern agriculture often does not supply adequate magnesium in the soil, and food processing removes magnesium. It is an extremely important nutrient that is essential for hundreds of biochemical pathways. A blood test for magnesium cannot correctly diagnose a deficiency. A long-term deficiency of magnesium can build up in the body that may take 6 months to a year of higher than normal doses to replete.

A very cheap and highly beneficial adjunct for any acute infection, especially viral, is oral magnesium chloride. Amazingly, just as intravenous vitamin C has been shown to cure polio, an oral magnesium chloride regimen has been shown to do the same thing, as or even more effectively than the vitamin C. [12-14]

Mix 25 grams MgCl₂ in a quart of water. Depending on body size (tiny infant to an adult), give 15 to 125 ml of this solution four times daily. If the taste is too salty/bitter, a favorite juice can be added.

Vitamin D3: 2,000 International Units daily. (Start with 5,000 IU/day for two weeks, then reduce to 2,000). Vitamin D is stored in the body for long periods but takes a long time to reach an effective level. If you are deficient (e.g. if you haven't taken vitamin D and it's near the end of winter when the sun is low in the sky) you can start by taking larger than normal doses for 2 weeks to build up the level quickly. The maintenance dose varies with body weight, 400-1000 IU/day for children and 2000-5000 IU/day for adults.

William Grant, PhD, says: "*Coronaviruses cause pneumonia as does influenza. A study of the case-fatality rate from the 1918-1919 influenza pandemic in the United States showed that most deaths were due to pneumonia. The SARS-coronavirus and the current China coronavirus were both most common in winter, when vitamin D status is lowest.*" [15-19]

"I have found the value of bolstering immune function with Vitamin D to be incredibly powerful." (Dr. Jeffrey Allyn Ruterbusch)

Zinc

Zinc is a powerful antioxidant and is essential for many biochemical pathways. It has been shown to be effective in helping the body fight infections. [20,21] A recommended dose is 20-40 mg/day for adults.

Selenium: 100 mcg (micrograms) daily. Selenium is an essential nutrient and an important antioxidant that can help to fight infections. Dr. Damien Downing says: "Swine flu, bird flu and SARS (another coronavirus) all developed in selenium-deficient areas of China; Ebola and HIV in Selenium-deficient areas of Sub-Saharan Africa. This is because the same oxidative stress that causes us inflammation forces viruses to mutate rapidly in order to survive. 'When Se-deficient virus-infected hosts were supplemented with dietary Se, viral mutation rates diminished and immunocompetence improved.'" [22]

B-complex vitamins and vitamin A: A multivitamin tablet *with each meal* will supply these conveniently and economically.

Nutritional supplements are not just a good idea. For fighting viruses, they are absolutely essential.

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FOR IMMEDIATE RELEASE
Orthomolecular Medicine News Service, Feb 2, 2020

Hospital-based Intravenous Vitamin C Treatment for Coronavirus and Related Illnesses

by Andrew W. Saul and Atsuo Yanagisawa, MD, PhD

(OMNS February 2, 2020) No matter which hospital a coronavirus patient may seek help from, the question is, Will they be able to leave walking out the front door, or end up being wheeled out the basement backdoor? Prompt administration of intravenous vitamin C, in high doses, can make the difference.

Abundant clinical evidence confirms vitamin C's effectiveness when used in sufficient quantity. [1]

Physicians have demonstrated the powerful antiviral action of vitamin C for decades. [2]

Specific instructions for intravenous vitamin C

The Japanese College of Intravenous Therapy (JCIT) recommends intravenous vitamin C (IVC) 12.5/25g (12,500 - 25,000 mg) for acute viral infections (influenza, herpes zoster, common cold, rubella, mumps, etc.) and virus mimetic infections (idiopathic sudden hearing loss, Bell's palsy). In adults, IVC 12.5g is given for early stage illness with mild symptoms, and IVC 25g for moderate to severe symptoms. IVC is usually administered once or twice a day for 2-5 continuous days, along with or without general treatments for viral infections.

IVC 12.5g cocktail

Sterile water	125 mL
50% Vitamin C	25 mL (12.5g)
0.5M Magnesium sulfate	10 mL
Add Vitamin B complex	
Drip for 30-40 min	

IVC 25g cocktail

Sterile water	250 mL
50% Vitamin C	50 mL (25g)
0.5M Magnesium sulfate	20 mL
Add Vitamin B complex	
Drip for 40-60 min	

Patients with acute viral infections show a depletion of vitamin C and increasing free radicals and cellular dysfunction. Such patients should be treated with vitamin C, oral or IV, for neutralizing free radicals throughout the body and inside cells, maintaining physiological functions, and enhancing natural healing. If patients progress to sepsis, vitamin C should be added intravenously **as soon as possible** along with conventional therapy for sepsis.

Toronto Star, 30 May 2003: "Fred Hui, MD believes that administering vitamin C intravenously is a treatment worth trying. And he'd like to see people admitted to hospital for the pneumonia-like virus treated with the vitamin intravenously while also receiving the usual drugs for SARS. 'I appeal to hospitals to try this for people who already have SARS,' says Hui. Members of the public would also do well to build up their levels of vitamin C, he says, adding that there is nothing to lose in trying it. 'This is one of the most harmless substances there is,' Hui states. 'There used to be concern about kidney stones, but that was theoretical. It was never borne out in an actual case.' Hui says he has found intravenous vitamin C effective in his medical practice with patients who have viral illnesses." [3]

Additional administration details are readily obtained from a free download of the complete Riordan Clinic Intravenous Vitamin C Protocol. [4] Although initially prepared for cancer patients, the protocol has found widespread application for many other diseases, particularly viral illnesses.

"Research and experience has shown that a therapeutic goal of reaching a peak-plasma concentration of ~20 mM (350- 400 mg/dL) is most efficacious. (No increased toxicity for posoxidant IVC plasma vitamin C levels up to 780 mg/dL has been observed.) . . . [T]he administering physician begins with a series of three consecutive IVC infusions at the 15, 25, and 50 gram dosages followed by post IVC plasma vitamin C levels in order to determine the oxidative burden for that patient so that subsequent IVCs can be optimally dosed."

Pages 16-18 of the Riordan protocol present IVC administration instructions.

<http://www.doctoryourself.com/RiordanIVC.pdf> or https://riordanclinic.org/wp-content/uploads/2015/11/RiordanIVCprotocol_en.pdf

There are four pages of supporting references.

"Given the rapid rate of success of intravenous vitamin C in viral diseases, I strongly believe it would be my first recommendation in the management of corona virus infections."

(Victor A. Marcial-Vega, MD)
Puerto Rico

"It is of great importance for all doctors to be informed about intravenous vitamin C. When a patient is already in hospital severely ill, this would be the best solution to help save her or his life."

(Karin Munsterhjelm, MD)
Finland

Winning the hospital game

When faced with hospitalization, the most powerful person in the most entire hospital system is the patient. However, in most cases, the system works on the assumption that the patient will not claim that power. If on your way in you signed the hospital's legal consent form, you can unsign it. You can revoke your permission. Just because somebody has permission to do one thing doesn't mean that they have the permission to do everything. There's no such thing as a situation that you cannot reverse. You can change your mind about your own personal healthcare. It concerns your very life. ***The rights of the patient override the rules of any institution.***

If the patient doesn't know that, or if they're not conscious, or if they just don't have the moxie to do it, the next most powerful person is the spouse. The spouse has enormous influence and can do almost as much as the patient. If the patient is incapacitated, the spouse can, and must, do all the more. If there is no spouse present, the next most powerful people in the system are the children of the patient.

When you go to the hospital, bring along a big red pen, and cross out anything that you don't like in the hospital's permission form. And before you sign it, add anything you want. Write out "I want intravenous vitamin C, 25 grams per day, until I state otherwise." And should they say, "We're not going to admit you," you reply, "Please put it in writing that you refuse to admit me." What do you think their lawyers are going to do with ***that?*** They have to admit you. It's a game, and you can win it. But you can't win it if you don't know the rules. And basically, they don't tell you the rules.

This is deadly serious. ***Medical mistakes are now the third leading cause of death in the US.*** Yes, medical errors kill over 400,000 Americans every year. That's 1,100 each day, every day. [5]

There are mistakes of commission and mistakes of omission. Failure to provide intravenous vitamin C is, literally, a grave omission. ***Do not allow yourself or your loved ones to be deprived of a simple, easy to prepare and administer IV of vitamin C.***

"If a family member of mine died due to coronavirus infection, after a doctor refused to use intravenous vitamin C, I would challenge his or her treatment in a court of law. I would win." (Kenneth Walker, MD, surgeon)

It can be done

Vitamin IVs can be arranged in virtually any hospital, anywhere in the world. Attorney and cardiologist Thomas E. Levy's very relevant presentation is free access. [6,7]

<http://www.doctoryourself.com/VC.NZ.Sept.2010.pdf> and
<http://orthomolecular.org/resources/omns/v06n26.shtml>.

Both the letter and the intent of new USA legislation now make this easier for you.

"The new federal Right to Try Act provides patients suffering from life-threatening diseases or conditions the right to use investigational drugs... It amends the Food, Drug, and Cosmetic Act to exempt investigational drugs provided to patients who have exhausted approved treatment options and are unable to participate in a clinical trial involving the drug. Advocates of right to try laws have sought to accelerate access to new drugs for terminally ill patients who are running out of options. Arguably, the law does not represent a radical change in this and several other states, however, because in 2016, California had already joined the majority of other states in adopting a law enabling physicians to help terminally ill patients pursue investigational therapies, without fear of Medical Board or state civil or criminal liability. . . The new Right to Try law should give physicians, as well as drug manufacturers, some added comfort about FDA enforcement in these cases." [8]

Therefore, in regards to intravenous vitamin C, do not accept stories that "the hospital can't" or "the doctor can't" or that "the state won't allow it." If you hear any of this malarkey, please send the *Orthomolecular Medicine News Service* the text of the policy or the law that says so. In the meantime, take the reins and get vitamin C in the veins.

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To learn more about intravenous vitamin C:

There are many articles posted for free reading at <https://riordanclinic.org/journal-article-categories/intravenous-vitamin-c/>

Mikirova N, Hunninghake R. (2014) Effect of high dose vitamin C on Epstein-Barr viral infection. Med Sci Monit. 20:725-732. <https://www.ncbi.nlm.nih.gov/pubmed/24793092>. "The clinical study of ascorbic acid and EBV infection showed the reduction in EBV EA IgG and EBV VCA IgM antibody levels over time during IVC therapy that is consistent with observations from the literature that millimolar levels of ascorbate hinder viral infection and replication in vitro."

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Dr. W. Gifford-Jones: People are dying needlessly of coronavirus. <https://www.mpnnow.com/news/20200128/dr-gifford-jones-people-are-dying-needlessly-of-coronavirus>

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Note: The Japanese College of Intravenous Therapy (JCIT) was founded in 2007. JCIT has organized educational seminar on intravenous nutrient therapy and integrative medicine for 13 years. JCIT now consists of 850 active members of physician and dentists. Every year, the College organizes 10 or more educational seminars with protocols for intravenous vitamin C therapy, mainly along with the Riordan Protocol, for patients with acute and chronic diseases. More than 2500 physicians in Japan have learned these protocols, and patients can easily find member's clinics all over Japan. In addition, JCIT recommends that physicians stock extra vitamin C vials in case of a pandemic. The JCIT website (Japanese language only): <https://www.iv-therapy.org>

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FOR IMMEDIATE RELEASE
Orthomolecular Medicine News Service, Feb 10, 2020

VITAMIN C AND ITS APPLICATION TO THE TREATMENT OF nCoV CORONAVIRUS

How Vitamin C Reduces Severity and Deaths from Serious Viral Respiratory Diseases

by **Andrew W. Saul, Editor**

(OMNS February 10, 2020) Most deaths from coronavirus are caused by pneumonia. Vitamin C has been known, for over 80 years, to greatly benefit pneumonia patients.

In 1936 Gander and Niederberger found that vitamin C lowered fever and reduced pain in pneumonia patients. [1]

Also in 1936, Hochwald independently reported similar results. He gave 500 mg of vitamin C every ninety minutes. [2]

McCormick gave 1000 mg vitamin C intravenously, followed by 500 mg orally every hour. He repeated the injection at least once. On the fourth day, his patient felt so well that he voluntarily resumed work, with no adverse effects. [3]

In 1944 Slotkin and Fletcher reported on the prophylactic and therapeutic value of vitamin C in bronchopneumonia, lung abscess, and purulent bronchitis. "Vitamin C has greatly alleviated this condition and promptly restored normal pulmonary function." [4]

Slotkin further reported that "Vitamin C has been used routinely by the general surgeons in the Millard Fillmore Hospital, Buffalo, as a prophylactic against pneumonia, with complete disappearance of this complication." [5]

According to the US Centers for Disease Control, there are about 80,000 dead from annual influenzas, escalating to pneumonia, in the USA. Coronavirus is a very serious contagious disease. But contagion to a virus largely depends on the susceptibility of the host. It is well established that low vitamin C levels increase susceptibility to viruses. [6]

Vitamin C lowers mortality

It is one thing to be sick from a virus and another thing entirely to die from a viral-instigated disease. It must be emphasized that a mere 200 mg of vitamin C/day resulted in an 80% decrease in deaths among severely ill, hospitalized respiratory disease patients. [7]

A single, cheap, big-box discount store vitamin C tablet will provide more than twice the amount used in the study above.

And yes, with vitamin C, more is better.

Frederick R. Klenner and Robert F. Cathcart successfully treated influenza and pneumonia with very high doses of vitamin C. Klenner published on his results beginning in the 1940s; [8] Cathcart beginning in the 1970s. [9] They used both oral and intravenous administration.

"Vitamin C is effective in reducing duration of severe pneumonia in children less than five years of age. Oxygen saturation was improved in less than one day." [10]

A recent placebo controlled study concluded that ***"vitamin C should be included in treatment protocol of children with pneumonia so that mortality and morbidity can be reduced."*** In

this study, the majority of the children were infants under one year of age. By body weight, the modest 200 mg dose given, to tiny babies, would actually be the equivalent of 2,000-3,000 mg/day for an adult. [10]

Although many will rightly maintain that the dose should be high, even a low supplemental amount of vitamin C saves lives. This is very important for those with low incomes and few treatment options.

We're talking about twenty cents' worth of vitamin C a day to save lives now.

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Recommendations for further reading:

[A coronavirus pandemic can be stopped with the immediate widespread use of high doses of vitamin C](#). Preventing and treating severe respiratory infections with large amounts of vitamin C is well established. There has been a lack of media coverage of this therapeutic approach against

viruses in general, and coronavirus in particular. (A [Chinese language edition](#) is also freely available.)

The [nutritional treatment of coronavirus is presented, with dosage specifics](#), in this protocol endorsed by physicians on the editorial board of the *Orthomolecular Medicine News Service*.

Exactly [how to administer intravenous vitamin C](#) to a hospitalized patient with a viral illness, by Atsuo Yanagisawa, MD, Japanese College of Intravenous Therapy. (Here is the [IV vitamin C protocol in Chinese](#)).

[Instructions on how to take high oral doses of vitamin C during illness, by Robert F. Cathcart III, MD](#). This paper contains the doctor's answers to many questions about the therapeutic use of vitamin C.

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FOR IMMEDIATE RELEASE
Orthomolecular Medicine News Service, Feb 13, 2020

Coronavirus Patients in China to be Treated with High-Dose Vitamin C

by Andrew W. Saul, Editor

(OMNS February 13, 2020) Breaking news: China is conducting a clinical trial of 24,000 mg/day of intravenous vitamin C to treat patients with coronavirus and severe respiratory complications. Participants will receive IV vitamin C for 7 days straight at Zhongnan Hospital of Wuhan University. Honor and thanks are due to Zhiyong Peng, MD, for making this happen. He is chief physician and professor at the hospital, which is close to ground zero for coronavirus. This important study was filed and announced yesterday and details may be confirmed at <https://clinicaltrials.gov/ct2/show/NCT04264533>

At Zhongnan Hospital in Wuhan, China, 24,000 mg of vitamin C will be administered to coronavirus patients, intravenously, each day for 7 days.

To fight a dangerous virus for which there is no existing medical treatment, you must rely on your own immune system. It is well established, in every nutrition textbook ever written, that you need vitamin C to make your immune system work well, or to even work at all. Inadequate vitamin C intake is a worldwide problem that can be immediately and economically fixed. With even modest amounts of supplemental vitamin C, deaths will decrease. In one study, a mere 200 mg of vitamin C/day resulted in an **80% decrease in deaths among severely ill, hospitalized respiratory disease patients**. [Hunt C et al. *Int J Vitam Nutr Res* 1994;64:212-19.] <http://orthomolecular.org/resources/omns/v16n09.shtml>

Another recent study used this same low 200 mg dose for infants and children under five years of age, with severe pneumonia. The authors concluded that **"Vitamin C is effective in reducing duration of severe pneumonia in children less than five years of age. Oxygen saturation was improved in less than one day."** [Khan IM et al. *J Rawalpindi Med Coll (JRMC)*; 2014;18(1):55-57 <http://www.journalrmc.com/volumes/1405749894.pdf>]

A lack of vitamin C has been long known, literally for decades, to increase susceptibility to viruses. <http://orthomolecular.org/resources/omns/v16n06.shtml> It is one thing to be sick from a virus and another thing entirely to die from a viral-instigated disease. The greatest danger with coronavirus is escalation to pneumonia. For this, much higher doses of vitamin C are indicated, preferably by IV.

How to administer high-dose intravenous vitamin C in hospital, Chinese language edition, is now posted for free access at http://www.doctoryourself.com/Coronavirus_Chinese_IV_C_Protocol.pdf This information is now being publicized all over Asia. Just because it is not on the American news channels doesn't mean it's not happening. It is. This is real news. The fake news is the media's neglect in not reporting it. And here is the protocol in English, to make reporting all the easier: <http://orthomolecular.org/resources/omns/v16n07.shtml>

(OMNS Editor-in-Chief Andrew W. Saul is a member of the Medical and Scientific Advisory Board to the International Intravenous Vitamin C China Epidemic Medical Support Team. Its director is Richard Z. Cheng, MD, PhD; associate director is Hong Zhang, PhD. Other team members that American readers will recognize include Jeanne Drisko, MD (Professor, University of Kansas Medical School); Thomas Levy, MD, JD; and Atsuo Yanagisawa, MD, PhD. (Professor, Kyorin University, Tokyo).

Intravenous Vitamin C Protocol in English:
<http://orthomolecular.org/resources/omns/v16n07.shtml>

IVC Protocol in Chinese:

http://www.doctoryourself.com/Coronavirus_Chinese_IV_C_Protocol.pdf

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Orthomolecular Medicine News Service, Feb 16, 2020

Early Large Dose Intravenous Vitamin C is the Treatment of Choice for 2019-nCov Pneumonia

Richard Z Cheng, MD, PhD; Hanping Shi, MD, PhD; Atsuo Yanagisawa, MD, PhD; Thomas Levy, MD, JD; Andrew Saul, PhD.

(OMNS February 16, 2020) The 2019-nCov (coronavirus) epidemic originated in Wuhan, China and is now spreading to many other continents and countries, causing a public fear. Worst of all, there is no vaccine or specific antiviral drugs for 2019-nCov available. This adds to the public fear and gloomy outlook. A quick, rapidly deployable and accessible, effective and also safe treatment is urgently needed to not only save those patients, to curtail the spread of the epidemic, but also very important in the psychological assurance to people worldwide, and to the Chinese in particular. Acute organ failure, especially pulmonary failure (**acute respiratory distress syndrome, ARDS**) is the key mechanism for 2019-nCov's fatality. Significantly increased oxidative stress due to the rapid release of free radicals and cytokines etc. is the hallmark of ARDS which leads to cellular injury, organ failure and death. Early use of large dose antioxidants, especially **vitamin C (VC)**, therefore, plays a key role in the management of these patients. We call upon all those in the leadership, and those providing direct assistance patients, to bravely and rapidly apply large dose **intravenous vitamin C (IVC)** to help those patients and to stop this epidemic.

2019-nCov is a rapidly developing epidemic with a high morbidity and mortality.

Wang et al reports 26% ICU admission rate and a 4.3% mortality rate in their 138 confirmed cases [1]. Chen et al report that out of 99 confirmed 2019-nCov patients, 17 (17%) patients developed ARDS and, among them, 11 (11%) patients worsened in a short period of time and died of multiple organ failure.

Increased oxidative stress, an underlying "cytokine storm," leads to ARDS which is the key pathology of high mortality of these pandemic viral infections. Cytokine storm-induced ARDS is the key pathology leading to death of these patients [2]. Intravenous vitamin C effectively counters oxidative stress.

Cytokine storm

Coronaviruses and influenza are among the pandemic viruses that can cause lethal lung injuries and death from ARDS [3]. Viral infections cause a "cytokine storm" that can activate lung capillary endothelial cells leading to neutrophil infiltration and increased oxidative stress (reactive oxygen and nitrogen species) that further damages lung barrier function [3]. ARDS, which is characterized by severe hypoxemia, is usually accompanied by uncontrolled inflammation, oxidative injury, and the damage to the alveolar-capillary barrier [4]. The increased oxidative stress is a major insult in pulmonary injury such as acute lung injury (ALI) and acute respiratory distress syndrome (ARDS), two clinical manifestations of acute respiratory failure with substantially high morbidity and mortality [5,6].

In a report of 29 patients confirmed of 2019-nCov pneumonia patients, 27 (93%) showed increased hsCRP, a marker of inflammation (and oxidative stress) [7]. Transcription factor nuclear factor erythroid 2-related factor 2 (Nrf2) is a major regulator of antioxidant response element- (ARE-) driven cytoprotective protein expression. The activation of Nrf2 signaling plays an essential role in preventing cells and tissues from injury induced by oxidative stress. Vitamin C is an essential element of the antioxidant system in cellular response [8].

Part of vitamin C's biological effects in critical care management are well reviewed in a recent article by Nabzdyk and Bittner from Mass Gen Hospital of Harvard Medical School on World's Journal of Critical Care Medicine [9]:

Antioxidant, radical oxygen scavenger protecting cells from oxidative Steroid- and catecholamine synthesis, cofactor in catecholamine, vasopressin and steroid synthesis, improves hemodynamics, may accelerate resolution of shock
Immune cell function. Increases neutrophil phagocytosis and chemotaxis, affects macrophage migration, enhances T and NK cell proliferation, modulates their function, may increase antibody formation.
Endothelial cell function. Decreases endothelium ICAM expression and leukocyte adhesion, improves endothelial barrier function, improves microcirculation
Carnitine production, modulates fatty acid metabolism, may improve microcirculation and cardiac function
Wound healing, cofactor of collagen synthesis, mitogen for fibroblasts

Antioxidants, especially large dose IV vitamin C (IVC) in the management of ARDS.

It's clear that increased oxidative stress plays a major role in the pathogenesis of ARDS and death. Cytokine storm is observed in both viral and bacterial infections [3]. Cytokine storm leads to increased oxidative stress, ARDS and death seems to be a common and non-specific pathway. This is important in clinical management. Since the prevention and management targeting increased oxidative stress with large dose of antioxidants seems a logical step and can be applied to these deadly pandemics, without the lengthy waiting for pathogen-specific vaccines and drugs, as is the case of the current 2019-nCov epidemic.

As a matter of fact, large dose intravenous vitamin C (IVC) has been used clinically successfully in viral ARDS and also in influenza [10]. Fowler et al described a 26-year-old woman developed viral ARDS (rhinovirus and enterovirus-D68) [3]. She was admitted to ICU. After failure to routine standard management, she was placed on ECMO on day 3. High dose IVC (200mg/kg body/24 hour, divided in 4 doses, one every 6 hours) was also started on ECMO day 1. Her lungs showed significant improvement on day 2 of high dose IVC infusion on X-ray imaging. She continued to improve on ECMO and IVC and ECMO was discontinued on ECMO day 7 and the patient recovered and was discharged from the hospital on hospital day 12, without the need of supplemental oxygen. One month later, X-ray of her lungs showed complete recovery. Gonzalez et al (including one of the authors, Thomas Levy) reported recently a severe case of influenza successfully treated with high dose IVC [10]. 25-year-old MG developed flu-like symptoms which was rapidly deteriorating to the degree that, about 2 weeks later, the patient barely had the energy to use the toilet. He was placed on high dose IVC (50,000 mg of vitamin C in 1000 ml Ringer's solution, infused over 90 minutes). The patient immediately reported significant improvement the next day. On day 4 of IVC infusion he reported to feel normal. He continued oral VC (2,000 mg twice daily) [10]. Another story has been widely circulating on the social media that large dose IVC reportedly was used in 2009 to save a New Zealand farmer, Alan Smith (Primal Panacea). One of us (Thomas Levy) was consulted upon in this case [11] [12]. Hemila et al reported that vitamin C shortens ICU stay in their 2019 meta-analysis of 18 clinical studies with a total of 2004 ICU patients on the journal *Nutrients* [13]. In this report, 17,000 mg/day IVC shortened the ICU stay by 44%. Marik et al reported their use of IVC in 47 sepsis ICU cases. They found a significant reduction in mortality rate in the IVC group of patients [14].

Dietary antioxidants (vitamin C and sulforaphane) were shown to reduce oxidative-stress-induced acute inflammatory lung injury in patients receiving mechanical ventilation [15]. Other antioxidants (curcumin) have also been shown to have promising anti-inflammatory potential in pneumonia [16].

High dose IVC has been clinically used for several decades and a recent NIH expert panel document states clearly that high dose IVC (1.5 g/kg body weight) is safe and without major side effects [17].

Summary

2019-nCov pneumonia is a rapidly developing disease with high morbidity and mortality rate. The key pathogenesis is the acute lung injury causing ARDS and death. Coronaviruses, influenza viruses and many other pandemic viral infections are usually associated with an increase oxidative stress leading to oxidative cellular damage resulting in multi-organ failure. Antioxidants administration therefore has a central role in the management of these conditions, in addition to the standard conventional supportive therapies. Preliminary clinical studies and case reports show that early administration of high dose IVC can improve clinical conditions of patients in ICU, ARDS and flu. It needs to be pointed that pandemics like 2019-nCov will happen in the future. Specific vaccines and antiviral drugs R&D take long time to develop and are not available for the current nCov epidemic and won't be ready when the next pandemic strikes. IVC and other antioxidants are universal agents for ARDS that can be rapidly applied clinically. Given that high dose IVC is safe, can be effective, we call on the involved leadership and healthcare professionals to look into high dose IVC without further delay. More clinical studies of the IVC and oral VC (such as liposomal-encapsulated VC) are needed to develop standard protocols for the current use and future uses are urgently needed. We hope when the next pandemic strikes, we won't be so helpless and we'll be ready.

For further reading

Coronavirus Patients in China to be Treated with High-Dose Vitamin C
<http://orthomolecular.org/resources/omns/v16n10.shtml> As of the date of publication of this

Orthomolecular Medicine News service Release, Dr. Cheng is in Wuhan facilitating IVC treatment for hospitalized coronavirus patients.

Vitamin C and its Application to the Treatment of nCoV Coronavirus

<http://orthomolecular.org/resources/omns/v16n09.shtml>

Hospital-based Intravenous Vitamin C Treatment for Coronavirus and Related Illnesses

<http://orthomolecular.org/resources/omns/v16n07.shtml>

Nutritional Treatment of Coronavirus

<http://orthomolecular.org/resources/omns/v16n06.shtml>

Vitamin C Protects Against Coronavirus

<http://orthomolecular.org/resources/omns/v16n04.shtml>

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