

# Vitamin C and other low-cost, readily available drugs to cut the death-rate of COVID-19

Press Release: March 30, 2020

“If you can administer Vitamin C intravenously starting in the Emergency Room and every 6 hours thereafter, while in the hospital, the mortality rate of this disease and the need for mechanical ventilators will likely be greatly reduced,” says Dr. Pierre Kory, the Medical Director of the Trauma and Life Support Center and Chief of the Critical Care Service at the University of Wisconsin in Madison. He explains that it’s the inflammation sparked by the Coronavirus, not the virus itself, that kills patients. Inflammation causes a condition called Acute Respiratory Distress Syndrome (ARDS), which damages the lungs so that patients, suffering fever, fatigue, and the sense that their inner chest is on fire, eventually cannot breathe without the help of a ventilator.

The University of Wisconsin in Madison has included intravenous Vitamin C as part of its treatment guideline. It’s part of a combination therapy protocol developed in 2017 by Dr. Paul E. Marik at the Eastern Virginia Medical School in Norfolk. Dr. Marik gives critically ill patients inexpensive, readily available intravenous doses of hydrocortisone, ascorbic acid, and thiamine (“HAT” therapy) within 6 hours of entering an emergency room. In Dr. Marik’s study, published in 2017 in the journal “Chest” by the American College of Chest Physicians, his team reported that in the first 47 patients treated with HAT therapy the death rate was 8.5% compared to 40.4% in patients not treated with HAT. Further, in a recent study by Dr. Kory’s team involving a large series of patients suffering septic shock, including many with pneumonia, they found that early IV administration of these same vitamins and steroids was critical to survival. The risk of mortality increased with each 6 hours of delay.

When the Coronavirus pandemic hit China, Chinese doctors were quick to use intravenous Vitamin C. When their patients tested positive for COVID-19, the Chinese added 2 inexpensive, FDA- approved drugs hydroxychloroquine (anti-malarial) and zithromax (antibiotic) to the IV and gave patients oral doses of 2 supplements: melatonin and zinc. The combination likely worked given that their reported mortality rates are lower than reported elsewhere in the world. The link to the Shanghai expert consensus on comprehensive care for COVID-19 patients is attached. The Chinese tried to do a clinical trial of IV Vitamin C, but Dr. Richard Z.Cheng, working with the investigators in Shanghai told Dr. Marik that it was very difficult to get patients to enter the trial. However, of the first 50 patients treated, no-one died!

When COVID-19 cases hit Virginia, Dr. Marik used his full HAT protocol (IV hydrocortisone, ascorbic acid, thiamine) on ARDS patients in the ICU, while also adding the drugs and supplements used by the Chinese. The results have been remarkable. He recently saved four COVID-19 patients, including an 86-year old man with heart disease who was admitted to the hospital on 100% oxygen, by using the protocol. (86-year old men with heart disease do not normally survive COVID-19!)

Dr. Joseph Varon at United General Hospital in Houston, Texas, is using the protocol and, to date, has saved 16 lives. He reports that they are getting off the ventilator in 48 hours

instead of 10 - 21 days! That means far fewer hospital beds and ventilators needed — as well as fewer coffins.

The big question is: Why aren't many more U.S. hospitals adopting this protocol? "The only reason I can give is that there is widespread, and often well-founded, bias amongst physicians against the use of vitamin therapy," says Dr. Kory. He adds, "The persistence of this bias is inexplicable given that the evidence is in plain sight." He points out that despite the publication of a major study of intravenous Vitamin C in ARDS (the syndrome that is killing patients with COVID-19), which reported dramatic reductions in mortality, days on the ventilator, and days in the ICU, only a minority of critical care doctors adopted the therapy as part of routine practice.

One hospital chain disallowed the use of steroids in the treatment of COVID-19. That's because doctors are taught that steroids increase the growth of viruses and that steroids harm patients with influenza. Drs. Marik, Varon, and Kory all agree that, for this reason, steroids should not be given early to a patient with influenza or coronavirus. But Dr. Kory says evidence does not show harm of steroids in previous coronavirus epidemics such as SARS and MERS, especially when given late in the disease. When the diagnosis is COVID-19, and especially when the inflammatory response begins to cause deterioration in breathing or the need for a ventilator, steroids should be added. The steroids are in the formula to fight the life-threatening inflammation. In fact, all of the formula's ingredients are needed, together, to get maximum life-saving results.

New York Internist Dr. Keith Berkowitz adds that, "in this time of crisis, when ventilators are in limited supply, hospitals are overwhelmed with patients, and medical staff lack adequate protective gear and are putting their lives on the line, every hospital needs to try this safe, low-cost and highly effective treatment that leading specialists know saves lives in acute respiratory distress syndrome. This is not the time to wait months for a vaccine or years for more test results. The important thing now is to keep patients off ventilators and to save lives. Period."

- Betsy Ashton, writer, former consumer correspondent, CBS News, governor and past president, Silurians' Press Club, director and past president, New York Deadline Club, former V.P. Sigma Delta Chi Foundation.

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Note: the following physicians are working in hospital intensive care units caring for a flood of COVID-19 patients and may not respond immediately.

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The Shanghai Consensus on Comprehensive Treatment of Coronavirus Disease: <https://covid19data.com/2020/03/04/expert-consensus-on-comprehensive-treatment-of-coronavirus-disease-in-shanghai-2019/>

Children's Hospital of Chicago — Vitamin C/ Vitamin B1/hydrocortisone, 43 patients — mortality decreased from 28 to 9 percent in 30 days. "American Journal of Respiratory and Critical Care Medicine," 2020.

CITRIS – ALI trial — showed a 30% absolute mortality reduction study found no difference in primary outcomes among patients with sepsis treated with vitamin C versus placebo. But there was a difference in a secondary outcome - overall mortality.

East Virginia Medical Center – Dr. Marik - Vitamin C/Vitamin B1/hydrocortisone, 47 patients – decrease in mortality from 40.4 to 8.5 percent. "Chest," American College of Chest Physicians, 2017

South Korean study in severe pneumonia — In terms of hospital mortality (the primary outcome), 11 of the 53 patients (21%) in the treatment group and 17 of the 46 patients (37%) in the control group died in hospital. "Journal of Critical Care," 2018