



## editorial

# PHARMACEUTICALS, COVID, VACCINES, AND OZONE THERAPY

**Dra. Adriana Schwartz**

Director and Editor Ozone Therapy Global Journal President of Aepromo  
(Spanish Association of Medical Professionals in Ozone Therapy)  
Madrid, May 2021

### **Suggestion on how to quote this paper:**

Schwartz, Adriana. (2022). Editorial. PHARMACEUTICALS, COVID, VACCINES, AND OZONE THERAPY, *Ozone Therapy Global Journal*. Vol. 12, nº 1, pp. 5-8.

After the distressing and eventful last two years (2020-2021) of the COVID-19 epidemic, the statistics show scandalous figures that are difficult to tolerate. The most recent estimates from the WHO (World Health Organization) “show that the full death toll associated directly or indirectly with the COVID-19 pandemic between 1 January 2020 and 31 December 2021 was approximately 14.9 million (range 13.3 [million to 16.6 million](#)).” Deaths directly caused by COVID-19 are estimated at 5.42 million, a figure already included in the [14.9 million deaths](#). Men were the most affected (57%), while the percentage of women was 43%. COVID was mainly raging with older adults. The epidemic was most widespread in [lower-middle income countries \(53%\)](#).

Added to these terrifying figures are the millions of people who, being infected by COVID-19, collapsed health care systems. Collapse that produced extraordinarily huge work for all health personnel as a whole.

There is currently no approved safe and effective therapy for the treatment of COVID-19. The WHO has only recommended palliative supportive care. Antiviral treatments such as remdesivir, lopinavir/ritonavir, and umifenovir could be given for optimal outcome, before the peak of viral replication begins. Ribavirin might be beneficial if given as an adjuvant, but ineffective as monotherapy. The use of corticosteroids is limited to specific co-morbidities. The intravenous administration of immunoglobulin (IVIg) is not recommended due to lack of data on Covid-19. The same happens with interferon, hydroxychloroquine and azythromycin. In patients who develop cytokine storm, interleukin 6 (IL-6) [might be more beneficial](#).

### **Vaccines**

During those desperate two years, different research programs were launched to discover the vaccine that, for the vast majority of experts, would be the solution to the epidemic. Different vaccines were appearing, and massive vaccination campaigns were launched.

It is still premature to say that COVID-19 has been defeated. While Cuba leads the world by vaccinated population, followed by the [United Arab Emirates](#), only 15.9% of the population of low-income countries have received [at least one dose](#). In many countries, the outward signs of the epidemic, such as the use of a mask, physical distances between people, etc., have been eliminated. However, precautions and prudence must still be part of our daily grind.

### **Science and money**

In these two long years the adjective "scientific" was perhaps one of the most used words in the medical field and health in general. Politicians claimed that their decisions were based on science.

Certainly, there was science in the discovery of vaccines, and in the health protocols designed to face COVID-19. But at the same time the worst economic interests in pursuit of huge financial gains hid behind the science, despite humanitarian appeals from the United Nations, "no one is safe, until everyone is". The WHO established a code of conduct so that vaccines reach all human beings. However, the WHO had to verify that the reality was opposite to the approved directives. The exorbitant profits of the pharmaceutical companies that we indicated in May of last year have been met [and even exceeded](#).

"The five companies that manufacture the most successful vaccines against covid will close the year [2021] with profits of 45,000 million euros ... Pfizer, Biontech and Moderna obtain around 1,000 euros of profit every second or 65,000 every minute thanks to the vaccines." "Pfizer already exceeds 260,000 million euros in capitalization; Moderna shares before the pandemic were worth twenty dollars, now they are at 174; AstraZeneca shares have appreciated 100% compared to what they were worth five years ago, while Biontech has appreciated almost 1,000% since the arrival of covid."

### **Who paid for vaccine research?**

Pharmaceuticals did not contribute a penny for the investigation. Millions of euros were given to them by the European Union and the United States, money that came from taxpayers. The contracts signed were secret, and the pharmaceutical companies were exonerated from responsibility for the collateral effects of the vaccines. Pharmaceutical companies determined all of the investigations, including the designs, the methodologies and their participants. In addition, the money given to pharmaceutical companies will not return to the coffers of the States; and in addition, pharmaceutical companies charge high prices for the vaccines [they sell to the States](#).

And as if that were not enough, the proposal of India and South Africa presented to the WTO (World Trade Organization) more than a year and a half ago, for the approval of the intellectual property exemption for COVID-19 medical tools [is still being debated](#), causing a detriment in the health of the poorest countries in the world. In quite diplomatic terms, the WTO, on the subject, says: "the relationship of IP[intellectual property] to the pandemic response – has sparked a vigorous debate within and beyond the WTO, and is a high priority for technical assistance and policy [support for WTO members](#)." In other words, the debate will continue.

### **Pharmaceutical lobby within the same regulatory agencies**

The very powerful FDA (Food and Drug Administration) in the United States was the one who set the tone in terms of the approval of drugs and vaccines to face COVID-19. The EMA (European Medicines Agency) was basically content to follow the FDA guidelines. The FDA actually represents pharmaceutical interests very well. For example, its current director, Dr. Robert M. Califf, is a member of the board of directors and shareholder of Cytokinetics, a muscle biology biopharmaceutical company. And in his previous term, in the same position, he approved five new opioids, which have killed more than half a million Americans, by overdose, [in the last two decades](#).

The appointment of the director of the “Warp Speed” operation in the United States, to accelerate the development of a vaccine against the coronavirus, fell in May 2020 to the doctor Moncef Slaoui, former president of vaccines at GlaxoSmithKline, one of the largest pharmaceutical [conglomerates in the country](#).

### **Ozone therapy in COVID-19**

The research led by Dr. Schwartz in a Madrid hospital and at the height of the pandemic (April 2020), showed that the Ozonized Saline Solution, one of the ways of applying ozone therapy, results in (a) an enormous benefit for patients; (b) a reduction in the intense and praiseworthy work carried out by all health personnel; and (c) in a significant decrease in the budget for health expenses.

**“Within 24 hours**, the PCR (parameter that measures inflammation) curves plummeted. The same occurred with other biochemical parameters and clinical symptoms. Fever rapidly normalized, while dyspnea and fatigue subsided significantly.

**“At 72 hours** the oxygen saturation in all of them had improved remarkably (towards 96-98%).

**“On the fifth day** of treatment, the basic medication was reduced in most of them, and discharges began.

**“On the tenth day**, the entire COVID-19 floor of the hospital had been discharged. The medical team observed no side effects, and no deaths were recorded.

**“No one of the hospital health personnel exposed to the virus became ill**, when treated with [Ozonized Saline Solution, as a prophylactic](#).”

### **In summary**

Ozone therapy does have scientific foundation. In the Medline (PubMed) database (May 31, 2021) there are 3329 documents related to ozone therapy of which 251 are clinical trials, 169 randomized controlled trials, 24 of systematic review and 18 meta-analysis studies, which support the use of ozone in medicine. In addition, there are 37 registered studies for ozone therapy on ClinicalTrials.gov (database of clinical trials at the US National Institutes of Health).

22 investigations on COVID-19 and ozone therapy have been published (May 31, 2021), of which 13 (59%) are on MedLine (PubMed). The main results of the studies indicate that ozone decreases inflammation rates and assisted respiration time, improves oxygen saturation and makes CRP negative in shorter periods. The most used routes of application for intervention in patients with COVID-19 are ozonized saline solution [and major autohemotherapy](#).

Ozone therapy is a medical act and should be practiced by medical doctors and [implemented with scientific rigor](#).

Medical ozone generators used within the European Union must be medical devices with classification IIb and must be provided [with the CE marking](#). The same sanitary registries of the generators should be followed in the rest of the world.

Medicinal ozone is a pro-drug, since it is a gas that does not follow the pharmacokinetics and pharmacodynamics of a drug. Ozone could not be classified as a medicine since it does not act on cell receptors, which it is a fundamental property that defines medicines. It is also not a medical device. This indicates that ozone therapy should be considered as a health technology, in the same class, for example, as hyperbaric therapy, radiotherapy, magnetotherapy, laser therapy, etc.

Ozone therapy is a "complementary" therapy and "should be performed *along with* and not *instead of* the of the usual of the usual drugs. "Understanding the difference between *complementary* [and alternative is critical](#)." It is about complementing, not substituting. Covid-19 is a very complex disease in which many different molecules intervene and interact. It is not single mechanism, so it is very difficult for a single drug or agent to have a dramatic effect. That is why neither a single drug nor medical technique could be considered unique, it will be a combination of them that will provide benefits to the patient.

Ozone therapy is safe and effective. This is demonstrated by research based on the work of Dr. Schwartz *et al.* at the Viamed [Virgen de la Paloma Hospital in Madrid](#); and the study by Dr. [Alberto Hernández et al.](#)

### **Conclusion**

The only viable way to continue advancing the ozone therapy agenda, in a hostile environment, is to do good practice with this marvelous tool and always abide by what is already established. The advances made by ozone therapy in recent years are very important. The knowledge acquired ten years ago is no longer enough. Hence the imperative convenience of the ozone therapist to be constantly updated, to read published research, and to study. Weekend courses of one or two days, although necessary and convenient, are not enough. Ozone therapy is a subject that is not learned in depth in courses of a few days.

The famous "It's fine by me" is not a basis for arguing anything, it falls into what we call anecdotal casuistry. If we want to invent or innovate, serious, deep and systematic study is required.

AEPRIMO has already organized eight Diploma Courses on "Ozone Therapy and Ozone-Induced Growth Factors". We invite you to register for the 9th diploma course that will begin this October 15 and end on May 15, 2023, with a total of 300 hours, totally online, and [bilingual \(Spanish and English\)](#).