A Homeopathic Perspective to the Chronic and Post-COVID-19 Syndromes

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Introduction

Since the beginning of the current COVID-19 pandemic, I made a number of presentations to the homeopathic community, including:

- 1- On March 18: The Extraordinary Success of Homeopathy in Epidemics—A Brief Overview
- 2- On April 4: Case Management of the Influenza and Pneumonia Patient with Homeopathy During the COVID-19 Pandemic
- 3- On May 2: Case Management of the COVID-19 Patient with Genuine Homeopathy— An update

Today, I do not intend to repeat anything of what was said in these conferences. The recordings and the notes of these conferences and other presentations are available for free on the website of either one of the two sponsoring organizations, namely, the American Institute of Homeopathy and the Canadian Academy of Homeopathy.

As the title of today's presentation indicates, I will address the chronic COVID-19 syndrome and the post-COVID-19 syndromes in a more informative than illustrative manner.

At the current rate, the COVID-19 pandemic will end up likely to be more devastating for humanity than the Spanish flu with its estimated 50-100 million deaths, as currently the reported mortality for the number of recovered COVID-19 positive-tested cases is around 11% worldwide.

However, as it is currently estimated that there are 10 times more SARS-CoV-2 infected cases than the actual number of people who had a positive PCR test, we can therefore assume that the mortality of COVID-19 is around 1.1%, and a 1.1% mortality of 7.6

billion of the current number of the world inhabitants would lead to about 84 million deaths.

However, the chronic morbidity that will follow this pandemic will likely burden our society for decades to come, an unseen phenomenon in modern times.

The true scope of this pandemic has therefore been underestimated, not just because of the widespread lack of testing, but especially because many people who are getting tested are receiving false negatives and the virus can thus spread freely throughout the world, which is greatly restrained by lockdowns.

However, as soon as social distancing and lockdowns are loosened, new cases make their appearance, as it is impossible for the moment to recognize infected asymptomatic people, as during the first four days of infection, the common incubation phase, people are asymptomatic and will receive false-negative result to the PCR test, 100% on the first day of infection and progressively down to 67% on the fourth day, 38% on the day of onset of symptoms, 20% on day eighth day and 66% on day 21st. Actually in one city in Italy, it was reported that 43% of the infected people were asymptomatic.

Incidentally, completely asymptomatic people can already have pneumonia that can be discovered with CT scans.ⁱⁱⁱ

We therefore have to expect that for the coming years this pandemic will wax and wane in any single area, as long as there is still one infected person left.

The homeopathic community must therefore continue to inform the public about the spectacular results that have been so far obtained in patients in all phases of the disease. Some of these results have been reported in May 2 conference, *Case Management of the COVID-19 Patient with Genuine Homeopathy—An update.*

However, the long-term sequelae of this pandemic that are not commonly discussed or acknowledged by the conventional medical community, will be the subject of today's presentation.

Based on the experience of past coronavirus epidemics, and the experience to date of the current COVID-19 outbreak, the homeopathic community has to prepare itself to deal with all types of long-term health problems of survivors, possibly for decades to come.

The Chronic COVID-19 Syndrome

Throughout the world, people who developed symptoms resembling mild to moderate COVID-19 were told to stay at home and not bother to go to their doctor or hospital, or be tested.

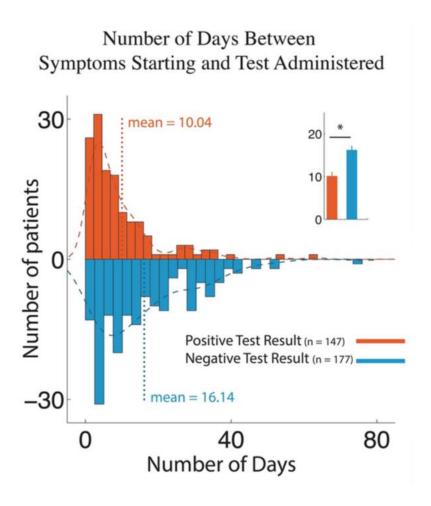
A number of these people and many others who have been hospitalized have reported that after the supposed two-week time window predicted by the WHO for the recovery of the mild to moderate case of COVID-19 were still greatly symptomatic.

In fact, thousands of these people have found refuge in support groups on Facebook and Slack, where they feel finally heard by others having similar experiences. Actually one of the Facebook support group pages begins with, "Welcome, no you are not crazy. You are not alone."

A journalist interviewed nine of these "long-haulers," all of whom shared commonalities, such as most were young; most had previously been fit and healthy. To give you the extent of the disability experienced by these chronic cases, one of these interviewed people reported, "It is mild relative to dying in a hospital, but this virus has ruined my life. Even reading a book is challenging and exhausting. What small joys other people are experiencing in lockdown—yoga, bread baking—are beyond the realms of possibility for me."

Interestingly, the majority of these long-haulers fall in no category reported by authorities during this pandemic, such as in the number of confirmed cases, hospitalizations, deaths or recoveries. They themselves feel trapped in a statistical limbo, uncounted and thus overlooked.

It is interesting to note that the symptom duration of the people who joined one of these groups (Body Politic) was almost identical to the ones who tested positive and negative.



I asked to join one of these groups to better understand the symptomatology of the COVID-19 long-haulers, but my request was rejected, as I didn't fulfil one of their criteria which was to have developed the infection.

However, there are enough cases published in the media about these long-haulers to acknowledge the great multiplicity of chronic and post COVID-19 syndromes.

Many of these long-haulers characteristically have persisting symptoms, such as daily episodes of low-grade fever marked by great weakness for weeks and months, or experience of relapsing cycles every few days.

Now the question that comes up is, what are we observing? Are these relapses due to:

1) People getting re-infected. This would be very unlikely, as many of the ones who experience cyclical relapses or a persisting course never experienced a recovery and also because most of them are isolated in prolonged quarantine.

- **2)** A chronic SARS-CoV-2 infection, perhaps, but it is currently unknown how long this virus can live in the human body, particularly in immune-privileged organs, such as the CNS and the testicles. Like other RNA viruses, such as the polio, Epstein-Barr or hepatitis C virus, the SARS-CoV-2 can also chronically infect its host, going in and out of latency.
- 3) Post-viral or post COVID-19 syndromes, which would explain autoimmune and inflammatory syndromes such as the pediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2 (PIMS-TS), and the ones who suffer from the sequellae of acute infections, like persistent scarring of the lungs, or from heart or kidney injury, or chronic encephalomyelitis.

A post-COVID-19 viral syndrome is one potential explanation for the chronic fatigue, headaches, joint and muscle pain, and cognitive fuzziness that can linger after a viral illness.

Myalgic encephalomyelitis/chronic fatigue syndrome

One of the most common post-viral syndromes is the myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS), which according to the Institute of Medicine afflicts 836,000 to 2.5 million Americans of which up to 91% remain undiagnosed. It is estimated that three-quarters of these cases were triggered by viral or bacterial infections.

CFS is not new, as there has been at least 75 documented outbreaks of CFS since the 1930s. ix It is now known that different viruses can trigger an inflammatory response that will culminate in the same chronic endgame.

In a study of 233 Hong Kong residents who survived the SARS epidemic of 2003, about 40% had chronic-fatigue problems after three years or so, and 27% met the CDC's criteria for ME/CFS.^x

Other studies following SARS and MERS suggest an even higher proportion (50%) of survivors develop ME/CFS.xi

Further, it was found that the 2003 SARS survivors had a poor quality of life 12 years following recovery, had impaired lung function and were more susceptible to inflammation, tumors and glucose and lipid metabolic disorders than controls.^{xii}

It has been said that SARS-CoV-2 could be "this generation's polio"—a disease that could leave many marked by its scars and reshape global health care.

A group of COVID-19 survivors have so far been followed for up to two months after they were released from hospitals, and half of them were found to have lung function below the normal.xiii

Some of the common persisting symptoms reported by the COVID-19 long-haulers are fever, chills, sweats, body aches, HAs, dizziness, tinnitus, SOB (85%) and exhaustion after mild exertion (many people have reported that they can't take a deep breath), palpitation, tightness or oppression of the chest, coughing, burning lungs, sore throat, profound fatigue, brain "fogs," concentration changes, memory lapses, sleep disorders, loss in taste or appetite and nausea resulting in "significant" weight loss, anxiety, depression, mood swings, paresthesia, skin rashes, conjunctivitis, flare-ups of preexisting conditions, such as endometriosis, tendonitis, stomach ulcers, herpes, and shingles, etc.

One of our most surprising findings of the long-haulers was that of the 62 symptoms reported, only two were statistically significant between the positively-tested versus the negatively-tested respondents, which were the loss of smell and taste.

All the other symptoms, including severe ones such as shortness of breath, tightness of chest, elevated temperature and fever, GI symptoms, burning of the lungs, elevated heart rate and tachycardia, and dizziness, were not different between the two groups groups.xiv

We should not be surprised by the young age of these long-haulers, as they don't form a representative group due to reporting bias. However, 11% of these were in their 20s, 30% in their 30s, 32% in their 40s, 20% in their 50s.^{xv}

It is interesting to note that every one of the cases I read described a very individual and distinct set of symptoms unique to everyone.

The post-COVID-19 syndromes

Like after any infection, people are also reporting never having been well since the COVID-19, which we can call the post-COVID-19 syndromes.

The symptoms of these post-COVID-19 syndromes can be serious and wide-ranging, affecting the lungs, heart, brain, kidneys, stomach and immune and nervous systems.

Further, no one can predict the long-term health effects on the population of a pandemic that is marked by pneumonia, as it is known that 11% of the survivors of community-acquired pneumonia die *within the first year* of hospitalization.^{xvi}

Stroke, embolisms, and blood clotting

Many patients hospitalized for COVID-19 are experiencing unexpectedly high rates of blood clots, likely due to the inflammatory responses, which can cause lung blockages, strokes, heart attacks, and other complications with serious, lasting effects.

Although strokes are more typically seen in older people, they are now being reported in young COVID-19 patients. In Wuhan, China, about 5 percent of hospitalized COVID-19 patients had strokes,^{xvii} which was also the case with SARS.^{xviii}

Although there's still a shortage of data, one study found that as many as 31% of ICU patients with COVID-19 infections had these kinds of clotting problems, which is considered much higher than baseline.xix

Neurocognitive and mental health impacts

Neuroinvasion and neurotropism are common features of human coronaviruses.xx

Further, the neuroinvasive potential of SARS-CoV-2 may be potentiating respiratory failure of COVID-19 patients.xxi

Research shows that one in five ARDS survivors experienced long-term cognitive impairment, even five years after being discharged.xxiii

A study reported high incidence of depression, post-traumatic stress disorder, somatoform pain disorder and panic disorder in SARS survivors after 3 years.xxiii

Interestingly researchers reported a trend of progressive rise in psychiatric morbidities among these SARS survivors, which continued to increase with the passage of time. Assessment showed figures around 10% to 35% in the acute phase of the infection (acute stage to 1 month) that increased to 64% at the 1-year follow-up.^{xxiv}

There is mounting evidence that SARS-CoV-2 impacts the brain similarly with potentially long-lasting consequences. In a study of COVID-19 patients, one-third experienced neurological symptoms, including agitation, confusion, dizziness, headaches and cognitive impairment.** It is however not clear whether the virus is directly infecting neurons, or it is the result of an inflammatory immune response or it is due to damage from oxygen deprivation, like after carbon monoxide poisoning.

In one study out of China, more than a third of 214 people hospitalized with confirmed COVID-19 had neurological symptoms, including dizziness, headaches, impaired consciousness, vision, taste and smell impairment and nerve pain while they were ill. These symptoms were more common in patients with severe cases, where the incidence increased to 46.5%.xxvi

Another study in France found neurologic features in 58 of 64 or 91% of *critically ill* COVID-19 patients.**xvii

14-25% of patients with acute respiratory distress syndrome presented with neurological symptoms, but it rose to 67% after intubation. Agitation and confusion was present in 69% and 67% of the patients respectively. Diffuse corticospinal tract signs with enhanced tendon reflexes, ankle clonus, and bilateral extensor plantar reflexes were present in 67% of these patients.*

Neurological symptoms range considerably across both the central and peripheral nervous systems, including headaches (13%) and dizziness (17%), alterations in consciousness (8%), confusion (20%), ataxia (9.5%), seizures, stroke 5%, smell, taste and vision impairments and nerve pain. xxx,xxxi

33% of hospitalized COVID-19 patients demonstrated a dysexecutive syndrome, including inattention, disorientation and poorly organized movements.**xxii

Moderate to severe depression (between 16-23%) and anxiety (24%) was reported in COVID-19 hospitalized patients.**xxiii

Persistent neuromuscular abnormalities have been observed amongst SARS survivors. In a study involving 128 health care workers with musculoskeletal complaints 2-years after the SARS infection, it was found that they experienced difficulties in performing

activities of daily living and work tasks, which persisted despite acute rehabilitation measures received.xxxiv

In prior studies of coronavirus infections, elevated CK has been documented in about a third of SARS patients, xxxv and SARS-CoV-2 infection may also be associated with viral myopathies. In recent studies from Wuhan, myalgias have been documented in 33% xxxvi and 44% of the survivors. xxxvii

Grief, depression and suicide are now prevalent among health care workers, or the ones who have lost a love one, or their job or the opportunity to fulfill their life dreams or from social isolation.

Lungs

The clinical and radiological imaging features of COVID-2019 on the lungs greatly resemble the ones found in severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS).**

All three coronavirus-associated conditions present with the same radiographic appearance of diffuse ground-glass opacity.xxxix

Ground-glass opacity of the lungs and intralobular and interlobular septal thickening were still present after up to 7 years of SARS survivors.xl

In a 15-year follow up study, 35% of SARS survivors had reduced lung capacity.xli

Sixty-six of the 70 (94%) discharged COVID-19 patients had residual lung disease on their final CT scans, with ground-glass opacity being the most common pattern.xiii

In patients with severe clinical features of COVID-19 infection, the proportion of patients with acute pulmonary embolus was found to be 23-30% on CT angiograms.xiii,xiiv

Survivors diagnosed with pulmonary embolism experience many symptoms and limitations, including fatigue, heart palpitations, shortness of breath, marked limitation of physical activity and inability to do physical activity without discomfort.xlv

A long-term sequellae of PE is chronic thromboembolic pulmonary hypertension, which is seen in about 15% of the PE cases.xlvi

Pulmonary fibrosis

Data on SARS, MERS and now COVID-19 patients show that pulmonary function may never be restored to baseline in those who developed pneumonia.

In a study, 71 SARS survivors were followed from 2003 until 2018 and found that more than a third had residual scarring, which can mean reduced lung capacity.xlvii

In 55 MERS pneumonia survivors, CT scan after one year still showed the ground-glass changes in the periphery of their lungs.xlviii

In one study, 91% of the patients hospitalized with COVID-19 were diagnozed with pneumonia.xiix One study from China found that the ground-glass appearance showed up in scans of 77% of COVID-19 patients.

Although the virus may not be present anymore in these pneumonia patients who have recovered, the removal of the cause of lung damage does not, in itself, preclude the development of progressive, fibrotic irreversible interstitial lung disease. Even a relatively small degree of residual but non-progressive fibrosis could result in considerable morbidity and mortality.^{II}

Progressive, fibrotic irreversible interstitial lung disease is characterised by declining lung function, worsening symptoms and quality of life, and early mortality.

One study found that about a third of 36 MERS survivors also had long-term lung damage. III

Data indicate that about 40% of hospitalized patients with COVID-19 developed ARDS, and 20% of ARDS cases were severe. Pulmonary fibrosis is a another seguel of ARDS.

In another study out of China, 66 of 70 hospitalized COVID-19 patients had some amount of lung damage on CT scans, and more than half had the kind of lesions that are likely to develop into scars. liv

Further, patients who went through an episode of ARDS have increased mortality and morbidity in the months and years after hospital discharge. In one study, as high as 15-20% of patients who survived such an event die within 1 year.^{IV}

Heart

COVID-19 survivors are at risk to have lingering cardiac damage, or make pre-existing cardiovascular problems worse, further increasing the risk for heart attack and stroke.^{Ivi}

By some estimates, 20% to 30% of COVIV-19 hospitalized patients experience heart problems in response to an overwhelming pulmonary infection, and cardiovascular complications contribute to 40% of all deaths.

In a study, out of a total of 416 hospitalized COVID-19 patients 82 or 19.7% had cardiac injury. Wii

In a non-representative study because of the small sample size, nearly 12% of the COVID-19 patients who survived hospitalization in China developed heart failure. [Niii]

In another study, 33% of COVID-19 patients admitted to the ICU in the US developed cardiomyopathy. lix

In a follow-up study of SARS survivors patients showed that 44% had various cardiovascular abnormalities 12 years after infection. ^{Ix}

Kidney

About half of those hospitalized with COVID-19 have blood or protein in their urine, which are indicators of early kidney damage which substantially increase risk of morbidity and mortality.^{lxi}

About 20-30% of patients suffer from moderate to severe acute kidney injury and 30% of patients who were admitted to intensive care with COVID-19 required dialysis. kii

In another study with 5,449 patients admitted with COVID-19 in New York, 36.6% developed acute kidney injury and 14.3% of these required dialysis. [XIII]

It has been reported that renal failure has been a common challenge in many severe COVID-19 patients, and patients' clotted blood has been clogging dialysis machines, which is unusual. Some of these acute kidney injuries may be permanent, requiring ongoing dialysis.

Dyslipidaemia

Dyslipidaemia was noted in 68% of the hospitalized COVID-19 survivors as compared to 40% of the healthy volunteers. |xiv

Diabetes

Abnormal glucose metabolism has been reported in 60% of SARS survivors as compared to 16% of controls. lxv

Immune system

SARS survivors suffered from increased lung infections, higher cholesterol levels and were falling sick more frequently than others for as long as 12 years. Ixvi

Researchers found that the SARS-CoV-2 damages T-lymphocytes in a similar way as the HIV. When researchers initiated contact between SARS-CoV-2 and lab-grown T-lymphocytes, the virus disabled the cells.

Incidentally, it was found that SARS virus doesn't have this capacity to infect T-cells, which again confirms the greater virulence of SARS-CoV-19.

Further, SARS-CoV-2 appears to create long-term sequellae to the immune-system that were not observed with SARS and MERS, and increase a person's risk for other infections.

Another reason that SARS-CoV-2 is so pernicious is that it appears to suppress interferon, which means that not only will the extent of COVID-19 infection be heightened, but reduces immunity to secondary infections and to infections in the years to come as well, such as to the influenza virus, tuberculosis or the four typically benign corona viruses endemic in the population. [xvii]

In a recent study, researchers found that 20% of people with COVID-19 were also infected with other viruses, including influenza, rhinovirus and respiratory syncytial virus.^[xviii]

It is noteworthy to mention that SARS-CoV-2 was found in 9% of the semen COVID-19 recovering patients. |xix|

Intubated and ICU COVID-19 patients

It has been reported that people who were admitted to the ICU and especially the ones who were intubated were more likely to suffer from post-traumatic syndrome, cognitive problems, ICU-acquired weakness, the long-term effects of the multiple drugs received and intubation, such as pain, dysphonia (76%) and dysphagia (49%). [xx,lxxi]

Survivors of the acute respiratory distress syndrome have persistent functional disability one year after discharge from the intensive care unit. |xxii

More than 30% of hospitalized COVID-19 patients suffer from post-traumatic stress disorder, even months after apparent recovery. Ixxiii, Ixxiv

Paediatric Inflammatory Multisystem Syndrome Temporally associated with SARS-CoV-2 (PIMS-TS)

A new condition, a Kawasaki-like illness, has recently made its appearance in SARS-CoV-2 infected children and young teenagers, which has so far received many names, including pediatric inflammatory multisystem syndrome (PIMS) and is associated with skin rashes, a high fever, vasculitis of the coronary arteries and elevation of inflammatory markers and cardiac enzymes.

The role played by toxic drugs and especially suppressive drugs to increased morbidity in this pandemic

The role played by toxic drugs and especially the suppressive drugs, such NSAIDs and febrifuges, such as the universal "fever treatment" with Tylenol can not be ignored regarding an increase of morbidity across the board and specifically for the development of chronic COVID-19 and post-viral syndromes including myalgic myeloencephalopathy/chronic fatigue syndrome.

It would be interesting to study the effects of these medications on long-haulers, as it appears that people reported in the Body Politic survey that the ones who experienced a very acute onset during the first two days tended to recover in about ten days, whereas patients who experienced "more strange" or milder reaction to the virus seem to have them for longer in a "coming and going" pattern. [xxxv]

It has recently been reported that those who were treated with hydroxychloroquine with the antibiotic azithromycin were at higher risks of developing arrhythmias and heart attack. IXXVI

In the April 4 conference, Case Management of the Influenza and Pneumonia Patient with Homeopathy During the COVID-19 Pandemic, I briefly reviewed the dangers associated with the suppression of fever with febrifuges, such as Tylenol.

Conclusion

SARS-CoV-2 can attach to human cells in many parts of the body and penetrate many major organs and tissues, including the heart, kidneys, brain, and even blood vessels, and leave its victims with multiple short and long-term sequellae with a heavy burden on a considerable segment of the population for decades to come.

While some patients may fully recover, others will suffer long-term damage, including lung scarring, heart damage, and neurological and mental health effects.

Already the UK National Health Service has reported that in the COVID-19 patients who required hospitalization, 45% have needed ongoing medical care, 4% require inpatient rehabilitation, and 1% will permanently require acute care.

Clinical experience with homeopathy

Regarding chronic COVID-19 cases, in the May 2 conference I shared a number of cases of which one had lingering symptoms of encephalitis with memory lapses, difficulty concentrating and daily recurrence of fever and headache. The case was finally resolved after more than five weeks of taking the remedies.

Another case presented with lingering symptoms over weeks of recurring fever, fatigue and respiratory symptoms, including dyspnea, burning the lungs and oppression of the chest.

Another suspected COVID-19 case who already had an underlying kidney condition developed all the symptoms of sub-acute nephritis, namely constant kidney pain, diminished urination, dark colored urine, hematuria, proteinuria, exhaustion and recurring fever with respiratory symptoms. It took weeks to bring this patient to the pre-COVID-19 level of health

In another recently treated suspected COVID-19 case, an 82-year-old woman, whose physician had told her to stay at home and bite the bullet as long as she could and not come to ER unless she was experiencing great respiratory distress. Over a period of three to four weeks, she became progressively incapacitated with recurrent fever, body aches, zero energy, greatly reduced appetite, a 10% weight loss and respiratory distress.

All this to mention that COVID-19 patients with lingering symptoms such as the ones mentioned above responded well to homeopathy and all have recovered to their pre-COVID-19 state of health.

Now, just imagine how different our world would be if the immense potential of homeopathy to assuage such a pandemic was being put to the service of humanity as a whole.

Just imagine if people in these support groups only knew about homeopathy, how different their lives would be.

People should know, and we should whisper this knowledge to all winds, that homeopathy has an extraordinary record for dealing with epidemics, both for prophylaxis and therapeutic purposes, and has shown to be able to effectively deal with the short and long-term sequellae of infectious diseases.

Just imagine if the full power of homeopathy was put to the service of humanity for prophylactic and therapeutic purposes. Lockdowns would unlikely have been needed, or at the very least would have been much less stringent and prolonged.

When homeopathy is finally recognized for its true value, the world will be in a different place. Hopefully, this will a positive aspect of this pandemic, as it has been for the environement.

Case management

Case management of the patients in all stages of COVID-19 has already been addressed in prior conferences, and especially in the ones of April 4 and May 2.

It boils down to the same good old rules of genuine homeopathy, which is the individualization of each case and the prescription of the remedy that is most similar to

the totality of the characteristic symptoms of the COVID-19 patient, that is the genius of the disease of the patient.

The remedy must be prescribed in an optimal posology, which requires the individualization of the potency, repetition and way of administering the remedy at each visit.

I would like to emphasize that COVID-19 tends to easily relapse with or without homeopathic treatment and I recommend that homeopathic treatment should not be interrupted while the patient is recovering in order to prevent the patient from relapsing.

If these fundamental rules of homeopathy are followed, success must follow.

Materia medica

Regarding the materia medica, I invite my colleagues to dig deep into their materia medica, and consider for the chronic and the many post-COVID-19 syndromes remedies worked out in recent years by the MMPP, such as:

Scuttelaria

Post-influenza debility.

Nervousness, unable to relax, restless lethargy.

Brain-fag, unable to concentrate slight mental exertion aggravates.

Depressed and suicidal.

Spasms and cramps.

Irregular, slow pulse, chest pain.

Headache and eye pain, protruding eyes.

Frequent, scanty urination and difficulty to void urine.

Worse studying, mental and physical overwork, acute severe illnesses like influenza.

Better open air, sleep and eating.

Conium

Psychic and physical depression after influenza.

Chronic fatigue after influenza.

Long-lasting cough after influenza, characterized by being worse from deep breathing and the change of position.

Kali phosphoricum

<u>Depressed</u>; aversion to meeting visitors; <u>irritable</u>, even with close friends, because **WEAK** and *helpless*.

Worse from anticipating outstanding duties that must be done.

Poor memory.

Eyes not focusing; <u>humming noise in ears</u>; anorexia; empty sensation in stomach. <u>Dark yellow urine on waking</u>; breathless on minimal exertion; <u>profuse prostration</u>; limbs heavy and joints aching.

Afebrile since first day of illness; **waking unrefreshed** from sleep, with definite morning aggravation.

Gelsemium

Extreme fatigue with dizziness following influenza.

Gelsemium has been used with success for post-viral infection debility and encephalitis and myelitis syndromes, such as the Spanish flu, mononucleosis and polio.

Avena

Avena should be considered in patients experienced great sleeplessness after influenza.

Carboneum oxygenisatum

There are many other remedies, which I have pointed out in recent conferences. However, I would like to return to Carboneum oxygenisatum, as in the last month I was able to complete the monograph of its intoxication by examining hundreds of reports of intoxication with carbon monoxide.

To complete this monograph, we are waiting for the completion of the proving of Carboneum oxygenisatum which has been underway for some weeks and the clinical confirmation, which have already started to trickle in.

So far in the creation of this monograph, 1,267 new entries have been made to the CR 4.5, which had 280 and now has a total of 1547 entries.

Let's now do a comparison of the symptomatology of COVID-19 with the one of Carboneum oxygenisatum:

First, by looking at their comparative symptomatology as viewed in the repertory ...

And, second by reviewing the similarity of their symptomatologies:

- Population at greater risk of health effects to CO exposure include aged people with co-morbidities, such as cardiovascular diseases, anemia and other blood disorders, chronic lung diseases such as chronic bronchitis, emphysema, and chronic obstructive pulmonary disease. |xxvii|
- Both COVID-19 and the acute and chronic states of CO poisoning resemble an influenza-like illness with chill, shivering, teeth chattering, fever, body aches and hallucinations.
- Many COVID-19 patients first experience dyspnea with a mild cough and great weakness with slight exertion similar to cases of slow CO poisoning.
- Both can have bloody sputum.
- Both conditions are marked by hypoxia.
- Both can experience shakiness and faintness.
- Both can experience nausea, poor appetite, anorexia, vomiting, diarrhea with abdominal pain, dehydration and weight loss.
- Both the COVID-19 and the CO poisoned patients want to lie down while experiencing extreme fatigue and prolonged sleepiness for several days ("I have never slept so much in my life").
- Both can experience a burning sore throat and nasal discharges.

- Both can experience burning chest pain with pronounced shortness of breath, wheezing, and chest congestion.
- Both can experience violent or persisting headaches.
- Both present with cytokine storms.
- Both develop pneumonia.
- Both can develop into acute respiratory distress syndrome.
- Both characteristically present with constriction and oppression of the chest with palpitation, tachycardia and tachypnea.
- On auscultation both with present with decreased breath sounds and scattered rales and rhonchi.
- Both will present apnea and Cheynes-Stokes breathing.
- Both develop pronounced non-cardiogenic pulmonary and intra-alveolar edema.
- On gross examination in both COVID-19 and CO poisoning, the lungs are edematous and vivid-red (described as carmine red^{lxxviii} for CO poisoning) with the absence of mucous secretion or hemorrhage.
- Both show ground-glass appearance of the lungs on X-ray, as with SARS and MERS. ("The ground-glass appearance was the most common finding, usually representing the initial manifestation of acute carbon monoxide poisoning. This was observed in 11 cases: 6 cases as the only manifestation." The ground-glass appearance was the most common roentgen finding of acute carbon monoxide poisoning, usually representing the initial chest manifestation. This lesion presents as a soft, veil-like, homogeneous density occurring predominantly in the peripheral portions of the lung.
- Both can develop into respiratory failure.
- Both can develop into multi-organ failure.
- Both develop vascular blood clots, which can lead to pulmonary embolism, venous sinus thrombosis, ischemic strokes, heart attacks, intestinal necrosis and deep vein thrombosis.

- Both conditions are characterized by arrhythmias, angina, myocarditis, vasculitis, heart infarction, heart scarring and heart failure.
- Both can end up with kidney injury and kidney failure.
- Both conditions are marked by elevated CK and myopathies. In other coronavirus infections, as in CO poisoning, rhabdomyolysis has been reported.
- Both develop gangrenous sores over the sacrum or other parts of contact.
- Both have chilblains or COVID-19 toes.
- Both can develop neuropsychiatric conditions ranging considerably across both the central and peripheral nervous system, including encephalitis, meningitis, hemorrhagic encephalopathy, short and long-term cognitive impairment, headache and dizziness, tinnitus, extreme lethargy, alterations in consciousness, agitation, anxiety, depression, mood swings, confusion, delusions, delirium, insomnia, rapid mood changes, lapses of memory, word hunting while talking, inattention, difficulty concentrating, thinking, and focusing on simple tasks, disorientation, poorly organized movements, ataxia, seizures, eating disorders, smell, taste and vision impairments, polyneuropathies, all types of paresthesia throughout the body, including tingling, pins and needles and vibratory sensation, and nerve pain.
- Both can present with diffuse corticospinal tract signs with enhanced tendon reflexes, ankle clonus and bilateral extensor plantar reflexes (a.k.a. the Babinski's response).
- Both can develop impaired liver function.
- Both develop reflux and heartburn.
- Both have conjunctivitis.
- Both develop hyperthermia at the beginning and hypothermia as there are progressing in the collapse state.
- Both COVID-19 and CO poisoned patients can develop significant metabolic acidosis.
- Both will present with elevated levels of LDH, CRP, ESR, D-dimer, troponin I, liver enzymes, WBC and neutrophils. lxxxi,lxxxii,lxxxiii,lxxxiiv

- Both COVID-19 and CO poisoned patients develop erythematous rashes and vesicular eruptions, and gangrene in their later stage.
- Pediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2 (PIMS-TS) and CO poisoning shares many symptoms such as vasculitis, arrhythmias, and cardiomyopathy, elevated cardiac enzymes, conjunctivitis, skin rash, erythema, edema of the hands and feet, vomiting and diarrhea with abdominal pain, low lymphocyte and platelet count, elevated CRP, ferritin, D-dimer, procalcitonin and interleukin-6, and diffuse edema.

Clinical outcomes with Carboneum oxygenisatum in COVID-19 cases

As I reported in the May 2 conference, six of the very old and handicapped residents in a nursing home in Lyon, France, were saved out of the severe or critical states of COVID-19, and three of these were saved with Carboneum oxygenisatum.

My friend and colleague, Dr. Michel de Sonnaville from Holland, just sent me three cases which I have added below.

Case 1 (strong indications for COVID-19)

March 23, 2020: M. vd S, a woman of 60 years old came to me with chief complaint of migraine. This went rather well with Natrum muriaticum and since on occasion Aconite for its acute manifestations. She now calls as she has been ill for two weeks. She received antibiotics from her MD because for a chlamydia infection a week ago.

She is indeed quite ill with a temperature of 39.5 in the evening; she is tired, she is very chilly, but her complaints are not very impressive and vague: a bit of pain in the abdomen, she wants rest. She has a cough, but no clear modalities for her. She has slight hay fever symptoms (bit sneezing, some irritation of the eyes).

She thinks she has corona.

It started two weeks ago with nausea and vomiting: when she did drink a little, she had to lay down very quietly otherwise she would vomit. She head a headache on the right side, better cold applications and rubbing.

Now she can eat, desires salt, is thirsty for warm drinks and has aversion to cold drinks (this last one is normal for her).

Bryonia 200, 3 times: morning, afternoon and evening.

March 26: At first she became a bit better but now she is clearly worse: headache, nausea, sore muscles (now she wants to move) and she started to cough. The cough is dry, worse warm to cold, talking, excitement, standing and walking and better lying, rest. Is is worse cold drinks. She prefers warm drinks. Sneezing worse warm to cold, undressing.

I ordered Rumex 200 to be sent to her, and let her continue taking Bryonia 200 4 times a day. If this would work well, she should then continue taking it.

March 28: She became better: 38°C, on the 26th she was nauseous and had a diarrhea, that's gone by now. She feels better, less muscle pain. Cough slightly better. But today she is nauseous because of her migraine. When she is ill she often gets migraine. She has a rather stressful relationship.

Go on with Bryonia 200 and for the migraine Aconite 200 3 times every hour.

March 30: The cough is better, no muscle pain, temperature 37.7C this morning. Less ill but still her migraine is there.

Bry 200 2 times a day and Acon 10M 1 time (she did have this remedy at home).

April 3: She is still ill, she feels it in her lungs and her whole body. But it is a bit better.

Tired, headache, a bit nausea. Her temperature can change: about 37, a bit later about 38, and a bit later again about 37.

Bryonia 200 4 times a day.

April 9: She reports by email that she is a bit better, but it is going up and down. More fever: 37.7 to 38.2

She is very tired, heaviness of her head, sore muscles, constriction or pressure of her chest, some cough, a bit nauseous, change and loss of smell and taste. I asked her to phone me.

April 10: She is a bit better, but remains ill: 37.7C in the morning, very tired, slight headache on waking, a bit nauseous, and she feels her lungs: a slight burning when breathing.

Her migraine got only slowly better after the Aconite 10M (but that was better than expected).

Bry M 3 times a day, Aconite 10M 3 times every hour if needed.

April 16: She got the remedy after 4 days. In between she took the Bryonia 200 more frequently.

After taking the Bryonia M she is a bit better: the fever is gone, her lungs are still hurting, and she has the feeling she needs more air, she is a bit oppressed. Still a bit nausea.

She started doing more: a bit of walking and biking, but she is very tired.

She does not feel herself or her old self.

Bryonia M at 8 and 9 am and 8 and 9 pm. When no effect: at 8, 9 and 10 am and pm.

May 5: No fever anymore for 10 days. The progress is very slow. She still is very tired. At times she suddenly is prostrated worse with trembling and perspiration, especially about 6 or 7 pm.

She still feels some burning in her lungs and a bit oppressed. She is a bit anxious and fears she never will be totally well.

At times she has a migraine in the early morning (about 4 am). 4 times Acon 10M makes it disappear. Carboneum oxygenisatum 200K once a day

May 15: She got the remedy on May 11.

She is better, no cough, no pain in lungs anymore, no fever, no nausea.

She did not have a headache anymore, which is much better than expected, in particular because she had much stress by ending her relationship.

But she is very tired and her physical fitness is very bad.

She has to go to work now.

It was striking for me that she just waited, not asked me about the remedy not arriving. She was a bit anxious but at the same time quietly waiting, a greater passivity then I know from her.

Carboneum oxygenisatum 200 once a day.

June 6: I did not hear anything from her. So I wrote her an email and she wrote back that she was improving day by day. She is building up her exercises and her condition is getting better but slowly. After the remedy things started being better.

She only feels a very slight restriction in her lungs. She is a bit worried about her body: are her kidneys, heart et cetera damaged?

She stopped the remedy 6 days ago, it seemed to do nothing anymore.

Carboneum oxygenisatum MK once a day.

Case 2 (tested positive for COVID-19)

March 13: A woman of 30 years. I know her as a very nice, lively and rather reserved person who takes care of her own business on her own.

She coughs, but feels not ill except for sometimes some hours: tired, a bit headache, sometimes nausea. One time she vomited after eating many rather old nuts.

Cough worse after going to bed, evening,

Sensation as if there was mucus in her lungs. She tries to cough it out but no expectoration.

Sometimes she has occipital headache. No clear modalities.

All the symptoms are vague and unclear. And changing a bit every now and then.

Sleep, appetite, digestion, et cetera: no symptoms.

Her energy is well.

Bryonia 200 3q8h

March 30: She took Bryonia 200 and later on Bry M, in several frequencies, but they did not bring much change.

She is not feeling well. She sounds a bit subdued and resigned.

Because of her work she could be tested for corona today.

April 16: She tested positive for corona. The first two weeks after testing positive for corona she was in quarantine in her own house. She liked it: nothing to bother! She started to finish things in her home, painting things, repairing doors et cetera.

Tuberculinum 200, 3q8h for three days.

May 6: The remedy did nothing. She has to work again, but she feels as if everything is too much and desires rest. She is a bit dull, has less initiative and still coughing every now and then. She is not feeling well, but she can not clearly explain it. She needs more rest and is tired.

Carbn-o. 200 3q1h morning and evening.

June 9: She took at first Carbn-o. 200 as prescribed and later on Carbn-o. M 3q8h.

She can only say by hindsight that she feels better. Not totally well. She still sometimes has a cough but no irritation in her lungs anymore.

She is more aware that she is busy with making essential choices in her life, choices about her work, her attitude and the future. She feels that that is costing her lots of energy.

She started to eat vegan 3 weeks ago. She worries a bit: could this be a part of her lack of energy?

She sounds better: more lively, more jokes, quicker.

Her energy is about 50% better.

Case 3 (suspected COVID-19, as she is the partner of case 2)

March 20: A woman also about 30 years old.

She got muscle pain, mostly in her back and shoulder blades. Then the headache came. Now she has already for 10 days a temperature between 37.7 (in the evening) to 38+ in the afternoon.

She coughs, worse exertion, rather dry, only a bit expectoration

She is tired, worse morning in bed, exertion, she "comes to nothing".

Chilliness, especially het torso. No thirst. Aversion to cold drinks.

She is dull.

Gels 200 three times (every hour) a day

March 23: She is a bit better, but not much.

No clear other indications.

Gels 200 twice a day three times

March 25: Her energy became better, she did several things, only in the mornings

The cough worsens, dry, worse on rising, on lying down, when moving, while eating, while talking.

She coughs from irritation in her throat.

She has pain in the cervical area, worse with higher temperature, better leaning backwards in her sofa.

She is more thirsty.

Bryonia 200 3x/8 hours (=three times a day)

March 28: Generally better, the fever is gone.

But she coughs more. It is more difficult to fall asleep.

She has an irritation in her lungs. The feeling that there is mucus in her lungs under her sternum, but there is no expectoration, dry cough (dryness particular in the morning).

Her throat is dry.

Cough worse eating, evening in bed, when beginning to walk.

Bry 200 3q1h, 2 times a day.

March 30, morning: The cough is worse. More and more dry, as is her throat.

At first it was better. Yesterday it became worse, and more difficult respiration. Dryness of throat.

Her menses began yesterday, and because of the pain she took 2 Ibuprofen (!).

No new symptom.

Bry 200 4q 30 min

March 30 afternoon: She thought the Bryonia did nothing, so she took the Gelsemium again, 3q1h.

She feels better, throat less dry, less irritation, less cough.

She was more thirsty.

Continue with Gels 200 3q1h now and I sent her Bryonia 10M.

April 3: She took the remedy 3q3h, her cough is better, generally better, no new symptom. Continues the same.

April 8: No fever anymore, no headache, sore muscles, no pain in lungs.

Energy a bit better, less cough.

April 15: More burning in lungs, respiration more difficult, very tired.

More perspiration.

April 26: She still is coughing, worse eating

After Tuberculinum 200 her throat got worse: pain.

So yesterday she took Bry M again, 3q1h

This morning for the first time her nose was clear.

Smell and taste are normal

New: worse when hungry (tired, weak) better after eating.

New: throat pain worse morning, better ice-cream.

Phos 200 once a day for three days.

May 6: Now she has headache again.

Her symptoms are changing a bit every time.

Now she feels a pressure on her chest, a constriction, with a feeling of difficult respiration, worse exertion, walking.

She feels a bit light headed.

She is very tired and sleepy, sleeps in the afternoon now.

Better warm bathing (she always loves bathing!).

Throat pain is a bit better, and worse from warm tea.

I hear a bit of despair of recovery.

The Phosphorus helped her, but then her menses came: April 29 to May 3.

She took ibuprofen again and became worse. (!)

Carbn-o 200 3q1h morning and evening.

May 8: This morning much coughing, now with some mucus (she swallows it).

Pain attachment of sternum and between the shoulder blades (cramping, sore) worse coughing.

The constriction of the chest is gone. The burning in her lungs is much better.

Generally better, more hope of getting better, more initiative.

Carbn-o. 200 3q1h morning and evening.

May 18: Worse again, no energy, feels not well, burning in lungs again.

Carbn-o. M 3q8h

May 28: The Carbn-o. M gave her a boost! Things went better and better. No symptoms anymore, she is back on track!

June 8: Everything is okay.

A request to the homeopathic community:

I am asking colleagues from around the world to report well-descibed cases that responded curatively to Carboneum oxygenisatum to the following address in order that we can further complete the monograph of Carboneum oxygenisatum : cah@homeopathy.ca

The question of a future mandatory vaccine

I am in the process of writing a quite comprehensive review on the dangers of vaccination viewed from a wholistic perspective, which conclusion can be summarized in one sentence: Neither people who accept vaccination as being beneficial nor vaccine promoters know what they are getting into in terms of safety and unfortunately the public is rarely told the full story despite being well documented.

On the point of a possible mandatory vaccination for the development of immunity against SARS-Cov-2, our Italian colleague Paolo Bellavite has written a paper on the subject which I have translated and adjoining here and which is entitled:

Mandatory flu vaccine against coronavirus? No thank you

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Physician, surgeon, hematologist and professor of General Pathology

This is an extended version with bibliography of the article published in "La Nuova Bussola Quotidiana" on 21/05/2020, which was translated with the help of DeepL.

On Thursday 14 May 2020, Mariastella Gelmini and Andrea Mandelli (FI) tabled a parliamentary motion (No 1-00349) calling on the Government to take steps to introduce mandatory influenza vaccination for all categories of prople for which the vaccine is now

only recommended. For example, all people over the age of 65, children aged 6 months and over with chronic respiratory diseases, diabetes or heart disease, women who are pregnant at the beginning of the epidemic season, people admitted to long-term care facilities, people working in public services of collective interest, and all health workers regardless of age would now be obliged to be inoculated. The main reason for the measure, expressed by the presenters, is that vaccination for influenza, by reducing the number of cases of this disease, would facilitate the diagnosis of COVID-19 in the event of two different epidemics occurring at the same time. Curiously, but not too much, the proposal includes an article that commits the Government to use pharmacies for vaccinations. Coincidentally, the second signatory of the proposal is the President of the Federation of Italian Pharmacists.

The wave of fear of COVID-19 is exploited to introduce the obligation for anti-flu. This proposal is unconstitutional and scientifically untenable. It is formally unconstitutional, like others elaborated on the subject by the Regions, because the Constitution states that "No one can be obliged to a certain health treatment except by legal provision. The law can in no case violate the limits imposed by respect for the human person" (art. 32). Therefore, the Government cannot and must not decree on health treatments of any kind without a law of Parliament. But neither could the Parliament impose an obligation of anti-flu, because it is neither necessary nor justifiable for technical reasons. It should be noted that the writer does not contest the vaccine, as a possible preventive intervention alongside other effective ones, but is against the mandatory vaccination, as already pointed out also for the 10 vaccines of Law 119/2017 [1] and in the report to the Senate of the Republic (Hygiene and Health Commission) on the subject of the revision of that law.1

But what's the point? The proposal of Gelmini-Mandelli, where it argues that it would be necessary to increase the flu vaccine covers "to allow differential diagnosis and facilitate the distinction between the two diseases", denotes a lack of knowledge about the characteristics of the vaccine and, even more seriously, about how the diagnostic and clinical activity of the doctor normally proceeds. It must be known that the flu vaccine has little effect on influenza (about 50%, some years a little more, some less, according to

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¹ https://www.senato.it/application/xmanager/projects/leg18/attachments/documento_evento_procedura_commissione/files/000/000/995/BELLAVITE_DA_PUBBL.pdf

the prevalent virus strains [2]) and almost nothing on most infectious syndromes of the respiratory tract, which are caused by other viruses. Confirming this concept, a recent Euro-surveillance report reported six studies, conducted in several European countries on a total of 31,537 patients with flu-like symptoms or acute respiratory infection [3]. All patients were swabbed and RT-PCR tested, but only 5,300 (17%) were positive for influenza virus. Many of these positives were vaccinated and the effectiveness of the vaccination was estimated at 29% to 61% according to the different studies. If this is the case, it is easy to predict that in a possible future COVID-19 outbreak, only a small proportion of concomitant respiratory infections could be hypothetically attributed to influenza. The fact that the vaccine is of uncertain efficacy makes its weight in the diagnostic pathway even more negligible.

The science of evidence. In the motion, the vaccination requirement for influenza would also be supported by the fact that "the overlap of the influenza epidemic with the COVID-19 pandemic could have a strong impact on the efficiency levels of the national health service, an uncontrolled and inappropriate use of emergency services, a significant increase in hospitalisations and congestion of territorial health services. This is a theoretical prediction, but it is completely overlooked because it is by no means certain that influenza vaccination, even if partially effective, will reduce hospitalizations. One of the most rigorous scientific journals (called "Cochrane") published in 2018 a review of influenza vaccine in the elderly, where it is written that the studies conducted so far are not able to determine the impact of vaccines on pneumonia, mortality and hospitalizations [4]. In 2020, an observational study was published in the Annals of Internal Medicine to determine the effectiveness of the flu vaccine in reducing hospitalisations and mortality among older people in the UK [5]. In this study, comparisons were limited to individuals close to the 65-year threshold and therefore plausibly similar in most sizes, except for the vaccination rate. The data included 170 million episodes of treatment and 7.6 million deaths. No evidence indicates that the vaccination has reduced hospitalizations or mortality among the elderly. With regard to influenza vaccination in pregnancy, in placebo-controlled studies the best evidence showed very low efficacy of vaccination at population level and an excess of local maternal adverse events, while mortality in offspring tended to be higher than in control groups [6, 7]. There is also a lack of evidence that vaccination of healthcare workers reduces the risk of contracting influenza in patients [8] so that some authors in a review

published by PlosONE argue that while the recommendation for vaccination is recommended, the vaccination requirement appears ethically unjustifiable [9].

Side effects? The Gelmini-Mandelli proposal completely overlooks the problem of adverse effects of vaccines, while the issue of safety is crucial, even more so if the injection is imposed on people who do not consent. The Cochrane review cited above writes that the available evidence of complications is of poor quality, insufficient or old and does not provide clear public health guidance on the safety, efficacy or efficacy of influenza vaccines for people aged 65 years and over. It is known that pharmacovigilance systems in this area are left mainly to "spontaneous" reports, which are largely insufficient to highlight the extent of the phenomenon, as evidenced by all AIFA reports in recent years and more recent literature [10, 11]. Although very rarely, vaccination against the influenza virus can cause interstitial pneumonia [12-14] and vasculitis [15], which could overlap with COVID-19. The interval between vaccination and diagnosis of crevice pneumonia was 10 days (minimum 2 - maximum 41). Vaccination is an invasive intervention for both the individual and the entire microbial ecosystem of society (resistant strains are also known to emerge from the widespread use of drugs and vaccines). Based on studies in children [16, 17] and adults [18], there is a well-founded suspicion that influenza vaccination may increase the risk of respiratory infections with other viruses. In the study in healthy children [16], children who received the trivalent inactivated influenza (TIV) vaccine reported 4 times more noninfluenza respiratory infections in the next 9 months. In the case of adults [18], the 36% increase in risk related to coronavirus infections.

WHO algorithm. A major problem regarding adverse reactions to vaccines is posed by WHO guidelines. In these guidelines, in the form of an algorithm, the assessment of the causes of adverse effects of vaccines is mainly based on the search for a direct "cause-effect relationship," without taking into account the multifactorial nature of inflammatory and immune phenomena [11]. Given an adverse event that follows the injection, the WHO method excludes the vaccine's liability if there is a "different cause". This system lends itself to errors of assessment because when vaccines are given to elderly people, who are often carriers of other chronic diseases, it is likely that a stimulus such as the vaccine and its adjuvants interact with other inflammatory outbreaks. However, if interacting causalities are neglected, many adverse events in which the vaccine plays a con-cause role remain unrecognized. Others have noted that, according to this pattern,

acute heart failure after influenza vaccination in an elderly heart patient may not be considered causally related to the vaccine [19]. If this is the case, adverse reactions to the influenza vaccine are normally underestimated, giving a false impression of safety. This topic should be addressed with appropriate studies, also in light of the fact that in the most severe phases Sars-CoV-2 virus causes an overreaction of the immune system. In the current pandemic, it is not yet known whether the incidence and severity of COVID-19 infection has been different between patients vaccinated and non-vaccinated with the flu virus, and already there is the intention to introduce the mandatory vaccination? This has never been the way taken by medical science.

It is not correct to treat a complex problem with such a simplistic and propagandistic approach as the title of a book published these days: "Vaccines are good for you".2 Which vaccines and for which diseases? Who are they good for, who are they less good for, how many can be the cause or con-cause of serious adverse events? As in other areas of medicine, a "one size fits all" approach to influenza vaccination will never be optimal for every individual. In particular, the health status and previous exposures of the subject are important in determining the success of the vaccine and its possible problems. In an ideal situation, prior to vaccination, the subject's immunological history, co-morbidity, response to previous vaccines and possible familiarity of vaccine reactions and, ideally, the state of humoral and cellular immunity through the laboratory should be evaluated. More if we talk about the category of over-sixties, where the vaccination coverage is already around 50% but there are often concomitant diseases of cardiovascular or tumor type, it is to be expected that the introduction of a universal and indiscriminate obligation could "force" to vaccinate even weak subjects potentially at risk of complications, increasing the adverse events. Or, the obligation should include a wide range of exemptions on health grounds, which could effectively frustrate the attempt to increase coverage significantly. But also with regard to children, the flu vaccination obligation would overlap with the one already introduced with the law 119/2017 for the 10 vaccines.

In this delicate moment of transition, it is necessary to avoid the introduction of further coercive measures on the population, without good reason and without scientific basis. Rather, it would be desirable for the various "medical-scientific societies" and the current

² https://www.ansa.it/sito/notizie/cultura/libri/altre_prop oste/2020/05/13/i-vaccini-fannobene-un-libro-su-sfide- che-ci-aspettano_8e9d2b0c-dc80-4f2d-987e- 6b650b5d73ff.html

"scientific technical committee" to express themselves against this kind of extemporaneous and pseudoscientific proposals, which seem to be made to take advantage of people's fear and the obvious authoritarian propensity of government policy. If we really wanted to make a better contribution to the diagnostic activity against the various epidemic respiratory diseases, the most effective thing is certainly not how much ventilated by the Gelmini-Mandelli motion, but the strengthening of radiological and laboratory diagnostic instruments and methodologies, among which it would be fundamental to have RT-PCR tests to simultaneously perform the research of influenza viruses and coronavirus in swabs. Such an implementation would certainly have lower costs and greater impact on the respiratory disease clinic sector compared to the idea of vaccinating the entire population with a poorly effective and potentially dangerous vaccine.

To believe that a forced increase in an anti-influenza vaccination that is effective and which covers only a small part of respiratory diseases, will help to make the diagnosis of COVID-19 is medical non-sense. Proposed for unclear reasons on the wings of terror spread by the continuous mass media bombardment, such a vaccination requirement for large categories of citizens would be useless and counterproductive, a betrayal of evidence-based medicine.

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Thank you for you attention.

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