Corona 2020

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A thank you to independent researcher Doris Loh,
for her tremendous contribution

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Covid-19: the recent history

• In an initial report of 41 patients infected in Wuhan, China, Huang et al reported a **78% male predominance**, with 32% of all patients reporting underlying disease. The most common clinic finding was **fever (98%)**, followed by **cough (76%)** and **myalgia/fatigue (44%)**. Headache, sputum production, and diarrhea were less common. The clinical course was characterized by the development of dyspnea in 55% of patients and lymphopenia in 66%. All patients with pneumonia had abnormal lung imaging findings. <u>Acute respiratory distress syndrome</u> (ARDS) developed in 29% of patients, and ground-glass opacities are common on CT scans.



Diagnosis

Government Laboratory testing: If laboratory testing confirms an alternate pathogen, SARS-CoV-2 can be excluded, although this recommendation may change in the future (CDC Health Alert Network. Update and Interim Guidance on Outbreak of 2019 Novel Coronavirus (2019-nCoV) in Wuhan, China. CDC. Available at https://emergency.cdc.gov/han/han00426.asp. January 17, 2020; Accessed: January 27, 2020)

The CDC has developed a diagnostic test for detection of the virus and has received special emergency authorization from the FDA for its use. The test is a **real-time reverse transcription–polymerase chain reaction (rRT-PCR) assay** that can be used to diagnose the virus in respiratory and serum samples from clinical specimens. (*CDC. Coronavirus Disease 2019 (COVID-19): COVID-19 Situation Summary. CDC. Available at https://www.cdc.gov/coronavirus/2019-ncov/summary.html. February 29, 2020; Accessed: March 2, 2020)*

Practical tips for the health practitioner:

Symptoms: mild to moderate fever, dry cough, muscle aches and fatigue

Laboratory: Low wbc and lymphocyte count in the cbc: Leukopenia and lymphopenia were common among early cases (Hui DS, I Azhar E, Madani TA, Ntoumi F, Kock R, Dar O, et al. The continuing 2019-nCoV epidemic threat of novel coronaviruses to global health - The latest 2019 novel coronavirus outbreak in Wuhan, China. Int J Infect Dis. 2020 Jan 14. 91:264-266. Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. Lancet. 2020 Jan 24.)

Chest radiography: Chest radiography may reveal pulmonary infiltrates (Bogoch II, Watts A, Thomas-Bachli A, Huber C, Kraemer MUG, Khan K. Pneumonia of Unknown Etiology in Wuhan, China: Potential for International Spread Via Commercial Air Travel. J Travel Med. 2020 Jan 14)

CT scanning: CT scan may reveal ground-glass infiltrates or consolidation, almost always bilateral(Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet*. 2020 Jan 24.

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The death rate of this virus is dependent on age. That is very different from the regular winter flu viruses who are equally dangerous to infants and older people.

Recent reports of younger people dying of covid-19 appear to relate to individuals exposed to high levels of WiFi/EMF — which is the major known cause of decreased melatonin levels

AGE	DEATH RATE*
80+ years old	14.8%
70-79 years old	8.0%
60-69 years old	3.6%
50-59 years old	1.3%
40-49 years old	0.4%
30-39 years old	0.2%
20-29 years old	0.2%
10-19 years old	0.2%
0-9 years old	no fatalities

Please cite this work as Gautret et al. (2020) Hydroxychloroquine and azithromycin as a treat ment of COVID-19: results of an open-label non-randomized clinical trial. International Journa l of Antimicrobial Agents – In Press 17 March 2020 – DOI: 10.1016/j.ijantimicag.2020.105949

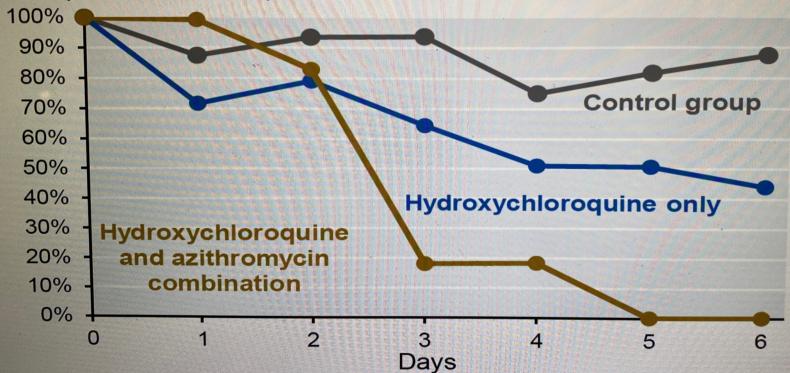
Results (40 pateints - 20 patients in treatment group, 20 cures)

- Six patients were asymptomatic, 22 had upper respiratory tract infection symptoms and eight had lower respiratory tract infection symptoms.
- Twenty cases were treated in this study and showed a significant reduction of the viral carriage at Day 6-post inclusion compared to controls,
- and much lower average carrying duration than reported of untreated patients in the literature.
- Azithromycin added to hydroxychloroquine was significantly more efficient for virus elimination

Some promising news in development of anti-viral medications



% of patients that test positive for infection



Source: Gautret et al, IHU-Méditerranée Infection. March 2020.

Biosci Trends. 2020 Mar 16;14(1):72-73. doi: 10.5582/bst.2020.01047. Epub 2020 Feb 19.

Breakthrough: Chloroquine phosphate has shown apparent efficacy in treatment of COVID-19 associated pneumonia in clinical studies.

Gao J^1 , Tian Z^2 , Yang X^2 .

Abstract

The coronavirus disease 2019 (COVID-19) virus is spreading rapidly, and scientists are endeavoring to discover drugs for its efficacious treatment in China. Chloroquine phosphate, an old drug for treatment of malaria, is shown to have apparent efficacy and acceptable safety against COVID-19 associated pneumonia in multicenter clinical trials conducted in China. The drug is recommended to be included in the next version of the Guidelines for the Prevention, Diagnosis, and Treatment of Pneumonia Caused by COVID-19 issued by the National Health Commission of the People's Republic of China for treatment of COVID-19 infection in larger populations in the future.

KEYWORDS:

2019-nCoV; COVID-19; SARS-CoV-2; chloroquine; pneumonia

Corona March 2020: what all of us should also know!

Covid-19 can survive 72 hrs (some estimate up to 7 days) on surfaces outside the body. Disinfecting is crucial! Once inside the body, Covid-19 lives mostly on the surface of tissues.

Early viral attachment: there is active viral replication of SARS-CoV-2 in the throat during the first 5 days after symptoms onset. Clinical presentation and virological assessment of hospitalized cases of coronavirus disease 2019 in a travel-associated transmission cluster https://www.medrxiv.org/content/10.1101/2020.03.05.20030502v1.full.pdf

ANK: with the first signs of illness (fever, sore throat, unwellness) spray propolis (KiScience Propolis Plus) - alternating with HOCL spray - frequently onto the sore throat area. Also spray HOCL in the eyes and nose (hourly or more often)

Propolis stimulates anti-viral immunity in mucous membranes (Ferreira, L. das N., et al. "Effect of the ethanolic extract from green propolis on production of antibodies after immunization against canine parvovirus (CPV) and canine **coronavirus** (CCoV)." Brazilian Journal of Veterinary Research and Animal Science 49.2 (2012): 116-121)

Advanced illness: The highest viral load was found in specimens from bronchoalveolar lavage fluid (93%), followed by sputum (72%), nasal (63%) fibrobronchoscope brush biopsy (46%), pharyngeal swabs (32%), feces (29%), and blood (1%). Interestingly, none of the 72 urine specimens tested positive for the coronavirus (Detection of SARS-CoV-2 in Different Types of Clinical Specimens | Global Health | JAMA | JAMA Network https://jamanetwork.com/journals/jama/fullarticle/2762997)

ANK: continue the Propolis and HOCL spray as much as circumstances allow plus add the ANK treatment suggestions (see following pages)

Stabilized HOCL: the mist that rocks

Song, Joon Young, et al. "Viral shedding and environmental cleaning in Middle East respiratory syndrome coronavirus infection." *Infection & chemotherapy* 47.4 (2015): 252-255.

Abstract: Viral shedding lasted 31 and 19 days from symptom onset in two patients with east respiratory syndrome coronavirus (MERS-CoV) pneumonia, respectively. Environmental real-time RT-PCR was weakly positive for bed guardrail and monitors. **Even after cleaning the monitors with 70% alcohol-based disinfectant, RT-PCR was still weakly positive, and converted to negative only after wiping with diluted sodium chlorite.** Further studies are required to clarify the appropriate methods to clean environments during and after treatment of patients with MERS-CoV infection.

Ono, Tomoko, et al. "Microbicidal effect of weak acid hypochlorous solution on various microorganisms." *Biocontrol science* 17.3 (2012): 129-133.

Abstract: We investigated the microbicidal effect of weak acid hypochlorous solutions of pH 5.0 - 6.0, produced by mixing NaClO and HCl in water, against various bacteria, fungi, and virus *in vitro*. The **weak acid hypochlorous solution had excellent microbicidal effect** against a broad microbicidal spectrum of standard strains and clinical isolates in a short time. The microbicidal effects of hypochlorous solutions did not depend on the available chlorine concentration but on the HOCl concentration. These results show that the **weak acid hypochlorous solution has practical applicability in such places as hospitals and establishments related to the food industry.**

Lewis, M. R. "Novel Coronavirus (2019-nCoV) Scope for Aqualution Hypochlorous Acid Solution for Effective Prevention and Control

Hypochlorous acid is not specifically tested against 2019nCoV – no disinfectant is - but it is tested and efficacious against a wide range of microorganisms including spores, bacteria and other viruses (enveloped and non-enveloped) leading to the reasonable conclusion that it will be effective. hypochlorous acid is fast acting with contact times typically less than a minute. It is safe for people and safe for the environment

"Stabilized hypochlorous acid disinfection for highly vulnerable populations: Brio HOCL™ wound disinfection and area decontamination"

2017 IEEE Global Humanitarian Technology Conference (GHTC). IEEE, 2017. Rasmussen, Eric D., and Jeffrey F. Williams.

A recent certificate from UW:

ENVIRONMENTAL & OCCUPATIONAL HEALTH SCIENCES

SCHOOL of PUBLIC HEALTH . UNIVERSITY of WASHINGTON

3/4/2016

To whom it may concern:

As part of our ongoing collaboration with Briotech Inc, in Washington, my microbiology laboratory has been evaluating the efficacy of BrioHOCl against human coronavirus OC43. Studies conducted to date indicate at least a 99.999% reduction in the infectivity of human coronavirus upon 10 min exposure to BrioHOCl solution. Further work is underway to characterize this important finding.

John Scott Meschke

Professor and Director of Environmental and Occupational Health Microbiology Lab Department of Environmental and Occupational Health Sciences School of Public Health, University of Washington

Current promising approaches to treatment (March 17, 2020)

Treatment of a possibly infected or diagnosed patient

1.Vitamin C: Ascorbic acid can dose-dependently inhibit NLRP3 Inflammasomes both in vitro and in vivo, decreasing IL-1β secretion, without inducing any cytotoxic effects nor cell death (Vitamin C inhibits the activation of the NLRP3 inflammasome by scavenging mitochondrial ROS https://www.researchgate.net/publication/305624280)

In a press release from a Chinese hospital specializing in infectious disease it was observed that intravenous vitamin C was extremely effective in treating affected and infected patients: the dose of 100-200 mg/kg body weight was given intravenously for 3 days in a row (this equals to only 7.5 – 15 grams for a 75 kg (180 lbs.) person (大剂量维生素C治疗新冠肺炎的交二方案 发布时间: 2020-02-21 11:00:56 浏览次数: 5870).

The treatment is scheduled for a government sponsored trial: "Clinical Trials.gov dentifier NCT04264533, ZhiYong Peng, Zhongnan Hospital"

In the US, the pioneers of orthomolecular medicine also published a consensus paper on the use of Vit C: Orthomolecular Medicine News Service, Feb 16, 2020 "Early Large Dose Intravenous Vitamin C is the Treatment of Choice for 2019-nCov infected Pneumonia" Richard Z Cheng, MD, PhD; Hanping Shi, MD, PhD; Atsuo Yanagisawa, MD, PhD; Thomas Levy, MD, JD; Andrew Saul, PhD.

ANK Prevention: Based on the advice from the Chinese hospital staff we recommend the following to all of our patients: take a minimum of 2000 mg Vit C per day. Use a mix of liposomal/non-liposomal vit C, by adding 1-2 tsp of MicroPhos to the prepared Vit C drink and stirring it vigorously. Divide the dose in half and drink twice daily.

- 2. Alinia: Based on the MERS-CoV experience years ago (and the Wang article/in vitro study of Covid-19 in Cell Res 2020) gained, use 1000 mg Nitazoxanide twice daily for 10 days. Nitazoxanide is usually well tolerated.
- **3. Chloroquine** phosphate (Plaquenil): 500 mg twice daily for 10 days (most Lyme literate MDs are familiar with the use of chloroquine and possible side effects)
- 4. Not published, but very similar chemical/biological properties: **Artesunate** (250 mg/day .v.) for 10 consecutive days (severe illness). In milder cases, artemisia annua tincture may work well (KiScience: Sweet Annie)
- 5. **Propolis** inhalation 15 minutes twice daily



Melatonin

Melatonin was shown to inhibit NLRP-3 inflammasomes in mice with myocardial septic conditions, transforming severe myocardial inflammation into milder symptoms, preventing cardiac failure, and significantly enhanced survival rates of Septic mice (Melatonin administration to wild-type mice and nontreated NLRP3 mutant mice share similar inhibition of the inflammatory response during sepsis – Rahim – 2017 – Journal of Pineal Research – Wiley Online Library https://onlinelibrary.wiley.com/doi/abs/10.1111/jpi.12410

Melatonin attenuates sepsis-induced cardiac dysfunction via a PI3K/Akt-dependent mechanism | SpringerLink https://link.springer.com/article/10.1007%2Fs00395-015-0526-1)

None of the pregnant mothers infected by COVID-19 admitted to Zhongnan Hospital of Wuhan University, Wuhan, China, developed severe pneumonia or died; nor were their babies infected by COVID-19 (Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records – The Lancet https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30360-3/fulltext).

Why is mom and baby protected? Melatonin secretion in the third trimester of pregnancy is more than doubled compared to the first trimester. (Voiculescu SE, Zygouropoulos N, Zahiu CD, Zagrean AM. Role of melatonin in embryo fetal development. J Med Life. 2014;7(4):488–492.)

Nitric oxide

In rodent sepsis models, **nitric oxide was demonstrated to inhibit NLRP3 activation** (Nitric oxide suppresses NLRP-3 inflammasome activation and protects against LPS-induced septic shock https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3567828/)

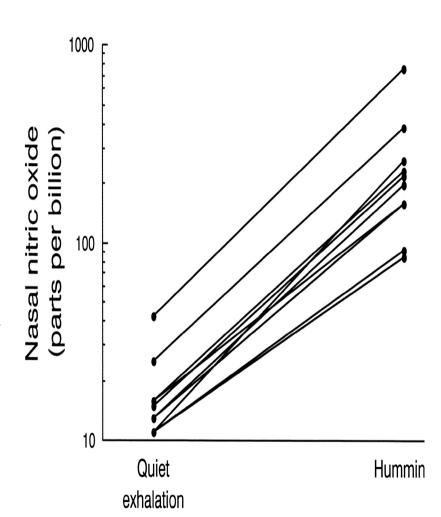
Nitric oxide produced in nasal passages is part of the defense system against bacterial and viral infections (High Nitric Oxide Production in Human Paranasal Sinuses – PubMed https://pubmed.ncbi.nlm.nih.gov/7585069-high-nitric-oxide-production-in-human-paranasal-sinuses/?dopt=Abstract)

Newborns have been found to have an extremely high level of nitric oxide in their barely developed paranasal sinuses (Infant nasal nitric oxide over time: natural evolution and impact of respiratory tract infection | European Respiratory Society https://erj.ersjournals.com/content/51/6/1702503)

Vit C increases NO (COVID-19 Mutations, Vaccines & Nitric Oxide – The Vitamin C Connection – EvolutaMente.it https://www.evolutamente.it/covid-19-mutations-vaccines-nitric-oxide-the-vitamin-c-connection/

Simple **Humming** while exhaling instantly increases the nitric oxide concentration in the nasal passages and sinuses – the very tissues, where covid-19 lingers for many days before infecting other tissues (Weitzberg, Eddie, and Jon ON Lundberg. "Humming greatly increases nasal nitric oxide." *American journal of respiratory and critical care medicine* 166.2 (2002): 144-145.)

ANK: whenever no one listens to you: hum – to prevent or treat Covid-19



The biological treatment and prevention protocol for SARS-Co2 ("Andrographis +)

based only on my prior clinical experience with SARS and MERSA (and may be irrelevant)

Other than the hygiene measures discussed earlier in this presentation, we recommend a disinfectant that does not substantially destroy the protective skin flora and still has enough anti-viral potential. I use isotonic HOCL spray - to use in my face, eyes, mouth and to repeatedly use on my hands. I also use it in an off-label way to inhale it with a micronizing inhaler (Omron) once a day for 15 minutes after seeing patients, some of whom might be incubating the infection. We nebulize it in the office and home regularly. I also recommend an herbal mix (based on reviewing the literature on natural anti corona-viral approaches). A complete mix in the correct proportions is available from "KiScience" Andrographis +

- Calendula (Jan, Nelofer, and Riffat John. "Calendula officinalis-an important medicinal plant with potential biological properties." *Proceedings of the Indian National Science Academy* 83.4 (2017): 769-787)
- Licorice ("Licking latency with licorice." The Journal of clinical investigation 115.3 (2005): 591-593.
- Scutalaria (Skullcap): Wu, Canrong, et al. "Analysis of therapeutic targets for SARS-CoV-2 and discovery of potential drugs by computational methods." Acta Pharmaceutica Sinica B (2020).
- Rosmary (Wu, Canrong, et al. "Analysis of therapeutic targets for SARS-CoV-2 and discovery of potential drugs by computational methods." Acta Pharmaceutica Sinica B (2020).
- Andrographis ("Broad-spectrum antiviral properties of andrographolide". Archives of Virology volume 162, pages611–623(2017). "Andrographolide treatment could increase the survival rate, diminish lung pathology, decrease the virus loads and the inflammatory cytokines expression induced by infection. Mechanism studies showed the NF-κB and JAK-STAT signaling pathway were involved in the activity of andrographolide"). Andrographolide inhibits influenza A virus-induced inflammation in a murine model through NF-κB and JAK-STAT signaling pathway. Microbes Infect. 2017 Dec;19(12):605-615. doi: 10.1016/j.micinf.2017.08.009. Activity of andrographolide and its derivatives against influenza virus in vivo and in vitro. Biol Pharm Bull. 2009 Aug;32(8):1385-91.
- Artemisia annua (Li, Shi-you, Cong Chen, Hai-qing Zhang, Hai-yan Guo, Hui Wang, Lin Wang, Xiang Zhang et al. "Identification of natural compounds with antiviral activities against SARS-associated coronavirus." Antiviral research 67, no. 1 (2005): 18-23.)
- Dandelion (Taraxasterol) (IN VIVO ANTI-INFLAMMATORY EFFECTS OF TARAXASTEROL AGAINST ANIMAL MODELS. Afr J Tradit Complement Altern Med. 2016 Nov 23;14(1):43-51. doi: 10.21010/ajtcam.v14i1.6.)

I suggest the following:. Put 100 ml clean water in a blender and add the weekly dose of Vit C powder. Then add the herbal composition "Andrographis +" (up to 12 dropperful/day. Calculate the weekly total). Add 2 tablespoons of Microphos and blend for several minutes. Put this liposomal mix in a glass and keep in the fridge. Estimate one seventh of the amount, put it in a separate glass and drink the content over the day. You may use additional "Andrographis +" tincture frequently - depending on possible current or past exposures.

Always have a binder on board and use the ionic footbath to keep the emuntories (exit routes) free.



Be sensible:

- Use your HOCL inhaler frequently during the day. Also spray your eyes, inside of your mouth. Use a fogger in your home once daily to create HOCL mist in the air, settling on all surfaces. Take HOCL with you and use in restaurants, workplace, coffee shop, dentist's office, etc.
- Use Propolis tincture inside your mouth alternating with HOCL. Use the propolis vaporizer (www.KiScience) in each room of your home for several hours/day. Alternate with HOCL. Change your clothes after being outside and don't reuse for 72 hours. Keep your shoes outside.
- Use Vit C every hour.
- Keep your Vit D level high normal
- Food: During infection, rest, drink plenty of purified water. You may lose your appetite. Do not force yourself to eat if you are not hungry. Calorie restriction initiates mitophagy and autophagy, which will facilitate healing.
- Do not use NSAIDS (ibuprofen etc.) ("Nonsteroidal anti-inflammatory drug without antibiotics for acute viral infection increases the empyema risk in children: a matched case-control study". The Journal of pediatrics, 175, 47-53 (2016); Bourgeois, M.,et al)
- Covid-19 binds to angiotensin receptors in the lung: no not use ACE inhibitors, but do use AGBs (angiotensin receptor blockers), such as Olmetarsan
- Monitor early on and treat low potassium levels (Li, X., Hu, C., Su, F., & Dai, J. (2020). Hypokalemia and Clinical Implications in Patients with Coronavirus Disease 2019 (COVID-19). medRxiv.)

Outlook

There are several ways to deal with a viral epidemic:

- 1. Prevent the herd-infection by massive social isolation (consequences: no health care, no food, no deliveries, no electricity, no water all depend on people showing up at work)
- 2. Prevent the infection with a vaccine (the track record of success is fairly poor look at the influenza record. Vaccines are typically on the market when the illness is almost gone)
- 3. Prevent the infection by using non-toxic prophylactic treatment (an example is outlined in this talk)
- 4. Creating true herd-immunity: Let the infection happen and support the system during the illness with non-toxic biological measures (we have decades of experience doing that with the chickenpox virus by getting children together with an infected child and enjoying long lasting immunity after the illness)

The financial and social consequences of the current Covid-19 outbreak are astronomical.

I believe if the current knowledge about non-toxic anti-viral strategies is used together with common sense preventive measures we will get through this in a few months. Most viruses adapt and mutate to live with us - instead of dying with us - and the illness becomes milder and less aggressive — in time. The real unknown is if — or how much - human hands are involved in producing this virus and what intent might be worked into it.

I am wishing you well and hope for all of us that this blows over without any further loss of life.



Other arguments for natural herd immunity

- A new French study in the Journal of Antimicrobial Agents, titled SARS-CoV-2: fear versus data, concludes that "the problem of SARS-CoV-2 is probably overestimated", since "the mortality rate for SARS-CoV-2 is not significantly different from that for common coronaviruses identified at the study hospital in France". https://www.sciencedirect.com/science/article/pii/S0924857920300972
- An Italian study of August 2019 found that flu deaths in Italy were between 7,000 and 25,000 in recent years. This value is higher than in most other European countries due to the large elderly population in Italy, and much higher than anything attributed to Covid-19 so far.https://www.ijidonline.com/article/S1201-9712(19)30328-5/fulltext
- In a new fact sheet, the World Health Organization WHO reports that Covid-19 is in fact spreading slower, not faster, than influenza by a factor of about 50%. Moreover, presymptomatic transmission appears to be much lower with Covid-19 than with influenza. https://www.who.int/news-room/q-a-detail/q-a-similarities-and-differences-covid-19-and-influenza
- A leading Italian doctor reports that "strange cases of pneumonia" were seen in the Lombardy region already in November 2019, raising again the question if they were caused by the new virus (which officially only appeared in Italy in February 2020), or by other factors, such as the dangerously high smog levels in Northern Italy. https://www.scmp.com/news/china/society/article/3076334/coronavirus-strange-pneumonia-seen-lombardy-november-leading; https://www.thelocal.it/20170131/our-lungs-are-breaking-smog-levels-way-above-safe-limits-in-northern-italy
- Danish researcher Peter Gøtzsche, founder of the renowned Cochrane Medical Collaboration, writes that Corona is "an epidemic of mass panic" and "logic was one of the first victims."https://www.deadlymedicines.dk/corona-an-epidemic-of-mass-panic/
- Former Israeli Health Minister, Professor Yoram Lass, says that the new coronavirus is "less dangerous than the flu" and lockdown measures "will kill more people than the virus". He adds that "the numbers do not match the panic" and "psychology is prevailing over science". He also notes that "Italy is known for its enormous morbidity in respiratory problems, more than three times any other European country."https://en.globes.co.il/en/article-lockdown-lunacy-1001322696
- Pietro Vernazza, a Swiss infectious disease specialist, argues that many of the imposed measures are not based on science and should be reversed. According to Vernazza, mass testing makes no sense because 90% of the population will see no symptoms, and lockdowns and closing schools are even "counterproductive". He recommends protecting only risk groups while keeping the economy and society at large undisturbed. https://infekt.ch/2020/03/neues-verstaendnis-der-covid-19-epidemie/
- The President of the World Doctors Federation, Frank Ulrich Montgomery, argues that lockdown measures as in Italy are "unreasonable" and "counterproductive" and should be reversed. https://www.general-anzeiger-bonn.de/news/politik/deutschland/interview-mit-weltaerztepraesident-montgomery-ueber-corona-pandemie-ist-chaos_aid-49609561
- Switzerland: Despite media panic, excess mortality still at or near zero: the latest testpositive "victims" were a 96yo in palliative care and a 97yo with pre-existing conditions. https://www.bluewin.ch/de/newsregional/zuerich/1068-bestatigte-corona-falle-und-funf-todesfalle-im-kanton-zurich-371873.html
- The latest statistical report of the Italian National Health Institute is now available in English.https://www.epicentro.iss.it/coronavirus/bollettino/Report-COVID-2019 20 marzo eng.pdf