COVID-19, what you need to know:

Facts, Fakery and hope for the future:

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Abstract:

Maybe we are approaching the CV-19 crisis the wrong way, because it is most probably a natural recombinant mutation of one or more of the 400+ corona viral family we already know, most of which are present only in animals and fish and pose no threat to us. Over time one or more of those combined with a human strain to evolve the deadly type. It is NOT a manmade bioweapon, as some fake news has reported, nor is it a hoax or a conspiracy. It's a deadly plague, like so many before it and we have to deal with that truth. So, what makes it different from these-and the other 7 non-fatal human corona strains? Those 7 cause a nasty cold at the worst. CV-19 on the other hand poses an existential survival threat to us all-how?

The answer lies in 3 factors. First: it has an outer ring-or "crown" (from which the corona name comes) of claw-shaped protein spikes. These enable it to hook onto the mucus membranes of our throats and lungs allowing it to build up and infect us. Secondly it's unusually strong, which is why it kills. Finally it's very contagious-its RO Factor-how many people one person can infect at a time- is at least 2.5, going upto 6 in certain circumstances, for reasons as yet unclear.

As a comparison, a normal seasonal flu (to which CV-19 is not related) has an RO of between 0.3 and 1.0. That accounts for both CV-19's rapid global spread-which is how it became a Pandemic- and that it kills at least 3 times more victims than an average flu. Perhaps weaker CV-19 variants have been around for years, undetected because there were no reliable tests, before combining certain RNA information to create this killer strain. CV-19 is not doing anything other virii haven't before, including attacking the dense ACE2 receptor fields-especially in the lungs and brain, leaving some victims permanently disabled.

Worse; there are now 2 distinct life-threatening types, East Asian and the even stronger European type (Los Alamos Laboratory report, May 2020). Both are equally contagious. That suggests CV-19 has 2 separate origins. We should, as a first-line of defense, be treating both with already established methods, using a broad-brush approach, instead of looking for a quick but elusive, perhaps non-existent "silver bullet" solution. People are dying now! We recommend early detection by serology (blood) or genetic test: isolation, patient support and known treatments. This will allow the time needed for further research and the development of more specific protocols and vaccines-**when and if** they become available-which isn't yet.

No vaccine was ever found for the common cold (too may mutations to find a realistic formula), nor was one for MERS or SARS1. CV-19 is very closely related to SARS 1. Relying solely on a theoretical vaccine to save us from CV-19, is at best; dangerously wishful-thinking which would leave us vulnerable and unprepared for future outbreaks. Even if we had vaccines, it would take at least 18 months to protect enough people worldwide to reach the theoretical 60+% level of global 'herd immunity' needed to halt this pandemic. Additionally, it could easily need annual or even 6 monthly new formulae because CV-19 has the 2 different types already with the likelihood of new mutations developing at any time. We don't recommend the herd-immunity theory as a practical solution to this crisis. Despite 1000s of years, Bubonic plague still infects 100s of people a year to this day (CDC, May 17th, 2019). The only difference is that we quarantine it quickly and know how to treat it. It is exactly that strategy- (isolate and treat) which we propose for CV-19. If we didn't Bubonic plague would be as deadly as ever and why history (and science) knows that the 'herd immunity' theory can't solve this problem as those countries who have tried it have found out at a terrible human cost.

It is also important to be aware that no vaccine gives 100% protection from anything. That said, vaccines save countless lives each year and we recommend everyone get them whenever possible. A sobering fact is that even if a viable CV-19 vaccine became available today, manufacturing and distributing enough doses before this coming winter, with its likely severe second wave of infection is impossible. Our protocol therefore concentrates on prevention, protection and treatment.

Diagnosis:

Early diagnosis is the key to a successful outcome -the sooner treatment begins the better. In the absence of clinical tests, first check your patient's breathing pattern-is it normal? A specific abnormal pattern is both a screening and diagnostic for CV-19. Check patient's blood pressure: High BP in patients with no history of it is a CV-19 symptom. We don't know why-perhaps due to immune and/or other stressors-but it's a clear diagnostic criterion. Observe for CV-19's painful, unproductive (dry) cough and sudden extreme fatigue. Check the patient's O2 Sat level, if it's below 88%-suspect CV-19 and treat NOW.

Patient history:

Findings from around the world indicate that patients who have had the BCG vaccination for Tuberculosis are much less at risk than those who haven't. It may be due to the nature of the BCG vaccine having an epigenetic boosting effect on the immune system at that early stage of life (typically before 5yrs). It's also been found that having the type A blood group significantly increases a patient's risk, both of infection and severity of illness. Having type O blood significantly lessens those risks. Test (if not in patient record) and act accordingly. Males (of all ages) are much more at risk than females, for reasons which remain speculative.

Even more oddly, it has been found that tobacco smokers seem far less likely to get CV-19 and less ill if they do. We are NOT recommending anyone to start smoking, but point out that French physicians are prescribing nicotine patches as part of their CV-19 treatment schedule. A second theory is that the heat from inhaling the smoke kills the virus, rather than the nicotine. There is a third theory proposed by the South African heart transplant pioneer Dr Christian Barnard-who suffered from congenital Asthma- and found that tobacco helped him. His argument was that **moderate** smoking strengthened and stimulated the lungs to make more sputum and more resistant to pathogenic agents. Smoking, he argued, inoculated the lungs to combat both city pollution and germs-lowering the smoker's overall pulmonary viral and particulate load with more productive and frequent coughing. Perhaps, in light of this pandemic, we should reconsider what we thought we knew and reinvestigate tobacco for any medicinal qualities it may have. It already provides relief to some with IBS and related conditions.

If you feel sick, DO NOT use over-the-counter drugs like Co-codamol or aspirin. They only obscure immediate symptoms, which may cause a delay in CV-19 diagnosis. One of its first symptoms is a high fever, these drugs lower fever, so a Doctor may miss a vital clue.

A test from S. Korea's Dr, Min Pok-Kee: As CV-19 enters mainly by the mouth and nose; he has found a good test to see whether you have CV-19. One of the first signs of infection is loss of smell. Sniff a bit of strong cheese, garlic, toothpaste or whatever when you get up and before bed-if you can smell them- no CV-19. If not, suspect CV-19 and act accordingly.

Treatment:

Anti-malarial drugs, e.g. hydroxychloroquine often (on their own) cause heart failure in vulnerable patients. They certainly are not in themselves a cure for CV-19. CV-19 attacks the heart via its high density of ACE2 receptor cells, as it does the other major organs for the same reason. There's nothing odd about that, many virii do-EBV, HPV-B19 and CMV are 3 other examples. We strongly oppose the use of these drugs at this time because they are unproven to help, but already well known for their life-threatening side-effects.

We suggest trying every reasonable anti-viral, Anti-Retro Viral and anti-inflammatory combination around the world and sharing results until "Best Practice" protocols are found. **Co-operation between nations is the key to our survival.** The idea of re-purposing existing drugs is a sound one with a confidence-boosting history, re-assuring for both patient and doctor. Doctors and scientists across the world must share and update their results in real time to achieve that goal.

The Anti-virals Remdesivir (used to treat Ebola) and Favipiravir (in combination with the anti-inflammatory Baricitinib) have shown great promise in new clinical trials-Remdesivir, particularly (New England Journal of Medicine: 05.25.2020). Another excellent candidate, which effectively treats SARS1 is the broad spectrum anti-viral NHC, which we highly recommend. They stop a virus from replicating using the enzyme Polymerase. It works like a dam stopping up a river. It's also a drug with the invaluable anti-ageing property of strengthening the immune system. Invermectin (an anti-parasitic) Tamiflu and some of the drugs used for Hepatitis C have also shown promise. *Beta Inteferon-2, plus some anti-fungals are also being trialed.

We must focus more on those proven existing meds which have aided recovery from SARS1, supplemented with Zinc, Vitamins K, B3, B6, C and E along with appropriate dosing with vitamin D*. All hospitalized patients must be kept warm and isolated in a humid room with 24hr IV Hydration. De-hydration along with prolonged immobility causes the blood to thicken, explaining some of the strokes we are seeing, especially among the under 40's-proper care is vital and we have seen examples where it was badly lacking. To combat this, we recommend blood-thinners be used more readily.

Regular inversion therapy should be used to clear the lungs. All patients need to be kept well-oxygenated at all times. We can't overstress how important that is-use pure Oxygen, Ozone (O3) Di-nitrous Oxide (N2O2), Hyperbaric Therapy, ECMO (Extra Corporeal Membrane Oxygenation) or re-purposed CPAP machines as an alternative to Ventilating when required. Use water and electrolytes to support all patients and help them "sweat it out", to reduce their viral load.

Another of the ways CV-19 kills is by damaging blood vessels; causing them to either leak, resulting in fatal hemorrhages or collapse, again resulting in strokes or embolisms. We have seen these symptoms before, again with Ebola. This virus must be contained at all costs with the highest standards of hygiene and quarantine with NO visitors allowed in hospitals or quarantined areas. Allowing CV-19 to break out and spread into the general population by any means is far too dangerous.

These are not yet 100% proven methods, but they do have an encouraging rate of success. This is a global pandemic threatening the very existence of our societies and time is not on our side. We need to adapt and innovate fast-that is why we propose this immediate action. It is, additionally a relatively simple and economic strategy. Our approach doesn't stretch health services as far as the current methods and is far safer for staff. We are convinced inoculate size* affects infection rate and severity of illness and will discuss this later.

CV-19 Antibody-rich blood plasma from recovered patients has been demonstrated to work in some cases. Using plasma is neither new nor experimental. We know how and why it works and have an established procedure for using it. Obese patients of all genders are proven to be at high risk and that factor (along with diabetes) should be treated as a priority. There's an old saying "feed a cold, starve a fever". It's good science; a 3-6 day liquids-only fast recharges the entire immune system. (https://thesource.com/2018/11/21/fasting-for-72-hours-can-reset-your-entire-immune-system/

It is VITAL that patients are properly rested and all measures implemented to ensure proper sleep duration. Research has proven a definite link between good sleep and recovery from any illness or accident. Sleep heals! https://www.srqmagazine.com/srq-daily/2020-04-07/13163_Sleeping-for-Good-Health--Including-your-Brain-

Health?fbclid=IwAR2RmHoWJRB0xDilJLhVRLVC5B9ehrlBZSbg3WdCuEBy09k__AOqLTZ_38E

Agency:

By attacking the ACE2 receptors densest in the major organs, CV-19 engages the whole immune system, allowing everything else in, particularly bacterial pneumonia. That's what often kills by causing an inflammatory immune overreaction-called a "Cytokine Storm" That is the absolute key to CV-19 death-out-of-control massive inflammation, all our treatment efforts focus on reducing inflammatory levels by all and any means. It opens all major organs to attack. The Skin (hence reported demagogical symptoms) the gut and urinary systems (hence the high viral load in urine and faeces observed), the heart (endocarditis) lungs (pneumonia) brain (explaining the reported neurological problems), liver and kidneys: resulting in predictable systemic organ failure and death.

If any one of them fails, the immune system becomes chaotic-which, again contributes to the Cytokine Storm. *The second main front of its attack is that CV-19 is a potent Interferon Antagonist. It has premature stop codons in its ORF3b gene (bioRxiv: May 11, 2020). They suppress the body's production of Type 1 Interferon, which is one of many Interferon proteins naturally produced by the body to fight infection and regulate the immune system. For that reason, we advise strongly that Interferon(s) be used as part of every treatment protocol, while the patient's Interferon levels are monitored constantly. That's necessary because any Interferon imbalance interferes with the whole immune function. Types and dosages need to be personalized for each patient. Some argue that Interferon should be used as a first-line prophylactic for everyone who tests positive with symptoms, no matter how mild. We disagree because too much Interferon, apart from the immune problems already stated can have serious short and long term side effects. These include: violent chills, flu-like symptoms, nausea, diarrhea, muscle damage and vomiting. Use only where clearly indicated.

Attacking the Virus:

One way is to attack its main protein-cutting chemical, the enzyme, M-Protease. The virus uses it to cut open our cells, allowing it to enter and infect us. From then on it replicates, cell-by-cell until it invades the whole body. Neutralize M-Protease and the virus is stopped. A second line of attack is to try to find drugs which stop the virus's replication mechanism-basically shutting it down. The antibiotic, Azithromycin seems to help, although no one is sure how-except it's a powerful senolytic. Senolytics get rid of dead cells, and are another anti-aging treatment. They flush out dead cells, reducing the viral load and help prevent the dangerous particle build-ups which cause strokes and plaques in the brain. That plaquing mechanism is also a big factor in causing both Parkinson's and Alzheimer's disease. Senolytics promote youthfulness, boost immunity and reduce general inflammation- (a key bio-marker of ageing) again aiding the fight against the "Cytokine Storm" caused by CV-19 and many other infectious agents. It also protects against secondary bacterial infections-especially pneumonia. We strongly recommend using broad-spectrum antibiotics at outset or as prophylactics where people work in dangerous areas with constant contact with the public and other "essential workers" as well as administering the pneumonia vaccine where appropriate. We are aware this is controversial advice but stick with our view and experience.

Protection:

We must protect all our health staff at all costs. Without them, society is defenseless and will collapse in the face of the oncoming 2nd and third waves of infection. We must ensure all hospital workers have proper PPE-especially N95/FFP2/3 quality masks with disposable gloves and goggles. Standard surgical masks are not as effective because they aren't an airtight seal to the face, allowing more germs in. That said, they are still a good idea. Health service collapse would not only allow CV-19 to tear through our communities and workforce but would cause another massive and ongoing public health crisis from cancelled or delayed regular hospital procedures like operations, cancer screening and emergency services

Safe re-usability of masks:

(K)N95/FFP2/3s masks are recommended for one-time use only. It is safe though, where PPE is in short supply to use both 3 times by observing the following: Never allow your mask to touch another, a patient or anything which can contaminate it. Don't use someone else's mask-ever. After each shift put your mask in a sealed surgical bag, avoid breathing. Wear a nose-clip and disposable latex gloves while you're doing it and then safely dispose of them both.

Sterilization:

Ultraviolet germicidal irradiation (UVGI) has been shown to work if these guidelines are properly followed, reducing the mask's filtration level by less than 1.25% with each clean. Our guidelines recommend putting masks in a humid chamber (at least 80%Rh) and shaking them around under strong UV light for at least 20 minutes at a temperature above 27C to make sure all parts are exposed, before sun-drying.

From our studies that process works equally well on all filter media and filter cartridges, depending on the style of mask. There are, depending on the type of mask, other ways to dis-infect. All cloth masks, preferably at least 3-ply cotton or better, fine silk, should be machine washed above 60C, then sun dried above 27C (80F) they can then be safely re-used many times. The Sun has UV rays (ultraviolet) which kill virii, bacteria and fungi by wrecking their cellular structure. It also kills them on our skin, while producing Vitamin D- which boosts our immunity. People who live in sunny climates are less vulnerable to infection than those who live in duller ones. This, in part may explain the uneven death rates we are seeing from around the world-and why supplementing with vitamin D* (it's in fact a hormone) is so important in the fight against CV-19 and other infections.

Further to the idea of germ-killing: It has been known for over 2000 years and recently proven that contact with copper surfaces kills most of all the three main infection agents, within hours, or with virii, minutes. We don't yet understand fully the bio-chemical mechanisms behind this, but it is a fact (https://www.smithsonianmag.com/science-nature/copper-virus-kill-180974655/). We recommend that all medical surfaces, hospitals, theatres, GPs and clinics make this their priority. The same applies to any private or public spaces, from domestic kitchens to bank counters and general amenity sites. Elevators are especially dangerous hot-spots for catching diseses.

Question:

Why do ordinary cloth masks and bandanas seem to protect? They shouldn't-painters, builder's and cotton masks let in 90+% of virii. Our hypothesis is that they stop people from touching their faces. All respiratory virii, including influenza, enter mostly through the nose, mouth or eyes from our fingers. Wearing glasses or goggles reduces the infection risk even more. Additionally, masks catch infectious droplets from other people. The CV-19 virus can be airborne, for up to 8 metres, spreading on air currents from coughs, spitting or sneezing and survive intact on food, fabrics and various other surfaces from minutes to days-again, that picture isn't yet clear. All masks reduce the chance of infecting other people. We recommend wearing a mask at all times, whether indoors or outdoors when you're in close contact with other people, particularly if one is known to be infected-even at home.

*Current best evidence suggests that to get CV-19 a high level of viral load (the inoculant) is needed. Crowds in contained spaces produce that, along with any air-conditioned areas and must be avoided. Aircon is especially dangerous. "Social distancing" is vital to reduce spacial viral load (ppm by volume) and reduce the rates of infection. That explains why prison staffs, front and second line health workers, gym staff, taxi, train and bus drivers, care home workers and residents along with teachers are so at risk of both infection and high mortality, regardless of their age or gender. CV-19 kills the young and the old: The bigger the inoculant, the worse the outcome.
In its frantic race for quick answers, we see that science has missed the most important point, which is not what CV is but what it does and how. There is too much future theorizing and too little concern for today's practical challenges. We are also deeply concerned that by concentrating so much on CV-19 theory and research, medical science may fail to produce effective seasonal 'flu and measles vaccines for the winter of 20020/2021.
Perspective and previous pandemics:
COVID-19 isn't yet an historic mass-killer. It's a stealthy Trojan horse; weak and fragile. It's a strand of mitochondrial RNA (26-32 Bits) genetic information in a thin protein bubble. A good hand/arm wash with soap and water kills it. As the most basic form of hygiene, we advise everyone to do that frequently- which alone significantly cuts infection rates.
1348-52: The Black Death pandemic killed upto 70% of the world's population. It too attacked especially the lungs (Pneumonic Plague). A person could wake up one day, feeling fine and have breakfast. By lunch they felt tired and feverish, by dinner, they were dead. That suggests strongly that the incubation period of the infection varied greatly between individuals-we are seeing that pattern again with CV-19. It's important to learn that lesson from history. 1665-66: 100,000 dead in London alone: The Marseilles Plague, 1720-22, 1 million dead. 1889-1m-dead: 1918-19-50-100 million dead. 1957-8-1.1 million dead: 1968-1970, 1m dead from 'flu, 2009-700, 000 dead. They were all novel variants of existing germs. We are nowhere near those <i>per capita</i> figures-yet, in terms of percentage of global population. It's important to view CV-19 in context to prevent panic coupled with civil and economic disruption, while continuing our efforts to combat CV-19.
As an aside:
In terms of the much-touted figures-how do so many countries "know" who died from CV-19, rather than with CV (and pre-existing conditions-or hospital infection)-without testing for it? The comparative seasonal mortality figures from this year to last year and 2018 pose some challenging questions, both in medical and political in terms of data collection and interpretation.

There has been an international systemic failure by both governments and scientists in focusing too much on the epidemiology of CV-19, while ignoring its pathology.
Recommendations on social restrictions:
We must keep national and international movement restrictions ongoing long after there are no more cases. We don't know how long this virus can incubate for before symptomizing. It could be 6-8 weeks, like EBV or even upto 6 months, like rabies. Nor do we know how long a person remains infectious after their recovery. Until we do, we recommend recovered patients should be quarantined for at least 14 days to avoid further spreading the disease. Releasing infectious people too early is clearly irresponsible. We recommend not easing social restrictions before 14 consecutive days with no cases having been reported. Only then should there be a carefully phased re-opening of business, schools and social areas. Lifting restrictions too early will allow the virus to flare up again, leading to longer, tighter lockdowns and greater social and economic chaos in the medium and longer term. Long-term health must come before short-term profits. Testing should continue and any new cases carefully traced and isolated. Above all we must accept that the world as we knew it on January 1st 2020 has gone and that things will never be as they were. We must not go into denial or complacency about that reality. We must also be ready to deal with the huge rise in mental illness and trauma that this history-changing event is causing and will continue to cause for decades.
Conclusion:
<u>Defend the patient against symptoms:</u> using dialysis, antibiotics, O2, O3, NO2, and hyperbaric oxygenation, along with anti-inflammatories, antibiotics, ARV's, immune boosters, and plasma—whatever works. We must manage CV-19's symptoms and support the patients, to give them the best chance to recover with minimal damage.
Don't over think CV-19-we don't know enough about it and may make things worse. Concentrate on what we do know, not what we guess. Protect the vital organs and, with early diagnosis by test and treatment, help all we can of all ages. We're focusing too much on cause at this point, when we should be focusing on effect.
Future pandemic prevention:

National strategy: defeating CV-19 and other threats before returning to near-normal is straightforward, but requires a lot of discipline and co-operation. Test, Trace, and Quarantine those infected and their surrounding areas to snuff out outbreaks immediately. Ideally, test the whole population to contain the virus before it can spread. Build anti-body plasma banks from those who have recovered and for use in future treatment and ongoing research into diseases. An added advantage of mass-testing lies in finding the so-called "super spreaders". These people carry the disease and can infect others, but don't show symptoms themselves. Again, that's nothing new, as the case of "Typhoid Mary", illustrates. She had to be quarantined in America for decades for the public's protection. Never ill herself, she infected an unknown number of people during the 19th and 20th centuries.

<u>International Strategy:</u> CV-19 doesn't care about national borders or regional politics. If we, as a species are to defeat it, we must act the same way. It is imperative that all countries unite on a common, co-ordinated international "lockdown", agreement, including air travel and plan for further events. We must agree to share any and all research as an open-source reference in order to respond faster and better to all eventualities. Our lives are at stake, our families are at stake, and our duty is to protect both, without regard of any other factor. All differences must be put aside to successfully face this enemy. The big question is "will we create a permanent, international system to deal with these threats.

Our core point is:

For now, let's use what we have to buy the time to develop better methods. It's better than guessing and hoping for a lucky break. There will be a stronger, second wave in October/November this year, and more waves later, probably of mutated CV-19 or other, newer, potentially even greater threats It's **not** a question of "if" that happens, only of when and we need to prepare for it now.

 $\underline{\text{Disclaimer:}} \ \text{Neither author is an MD. This paper is to augment, not replace or absent the advice of specialist clinical staff.} \ \textcircled{O} \ \text{Ian Hale and Mekella Mehmet-Yesil (2020):} \ \text{All rights reserved}$