

The Latest Hydroxychloroquine Data, As of April 11

By [Derek Lowe](#) | 11 April, 2020

We have new data on hydroxychloroquine therapy to discuss. The numbers will not clear anything up.

First off is an abstract from the Marseilles IHU group of Dr. Didier Raoult. It presents 1061 patients treated for at least 3 days with their hydroxychloroquine/azithromycin combination, with followup of at least 9 days. It includes the statement “98% of patients cured so far” and says also “No cardiac toxicity was observed”, and also says that mortality figures were improved in these patients as compared with others receiving standard-of-care without such treatment. The other release is **a data table** on these patients (there is no full manuscript as of yet). It does not include any sort of control group, nor (as far as I can see) does it even have a comparison in it to those other patients mentioned in the abstract. Let’s hold on to these thoughts as we discuss the next data.

Here is a preprint from a large multinational collaboration presenting data obtained from health care systems (claims data or electronic medical records) in Germany, Japan, Netherlands, Spain, UK, and the USA. It (1) compares the safety of hydroxychloroquine in rheumatoid arthritis patients (956, versus those patients (310,350 of them) taking another common RA drug, **sulfasalazine**, (2) compares the safety of the combination of hydroxychloroquine and azithromycin taken together (in 323,122 patients) versus the combination of hydroxychloroquine and another common antibiotic, amoxicillin (in 351,956 patients). Nothing like digging through the big health databases, is there?

The good news is that the HCQ/sulfasalazine comparison does not show any real differences in adverse events over one-month courses of treatment. I should note that sulfasalazine is not the most side-effect-free medication in the whole pharmacopeia, but it has not been associated with (for example) QT prolongation, which is one of the things you worry about with hydroxychloroquine. The paper concludes that short-term HCQ monotherapy does appear to be safe, but notes that long-term HCQ dosing is indeed tied to increased cardiovascular mortality.

The trouble comes in with the azithromycin combination. Like many antibiotics (although not amoxicillin), AZM is in fact tied to QT prolongation in some patients, so what happens when it’s given along with HCQ, which has the same problem?

Worryingly, significant risks are identified for combination users of HCQ+AZM even in the short-term as proposed for COVID19 management, with a 15-20% increased risk of angina/chest pain and heart failure, and a two-fold risk of cardiovascular mortality in the first month of treatment.

That isn’t good. I am very glad to hear that the Raoult group has observed no cardiac events in their studies so far, but I wonder how they have managed to be so fortunate, given these numbers. The authors again:

As the world awaits the results of clinical trials for the anti-viral efficacy of HCQ in the treatment of SARS-Cov2 infection, this large scale, international real-world data network study enables us to consider the safety of the most popular drugs under consideration. HCQ appears to be largely safe in both direct and comparative analysis for short term use, but when used in combination with AZM this therapy carries double the risk of cardiovascular death in patients with RA. Whereas we used the collective experience of a million patients to build our confidence in the evidence around the safety profile, the current evidence around efficacy of HCQ+AZI in the treatment of covid-19 is quite limited and controversial.

Indeed it is. And this morning, there is a picture of what appears to be the summary page of a manuscript under review at the *NEJM*. This is quite irregular, of course; this stuff is not supposed to be floating around on Twitter. It is apparently a study from Detroit of 63 consecutive patients admitted with coronavirus infection, with 32 assigned to receive hydroxychloroquine therapy and the others to standard-of-care. So this is again not a large study, and is rather similar in size to the Wuhan study **discussed here** that showed some benefit.

That’s not the case in this work. If we are seeing is an accurate summary of the work, then HCQ treatment was actually associated with worse outcomes. I won’t go into more detail until this becomes more official and we can verify that we’re looking at a real manuscript – a quick check shows that the authors’ affiliation appear to be correct, but that many of them are opthamologists, and I’m not sure what to make of that. I am of two minds about whether to mention it at all, but these are unusual circumstances. More to come as the situation gets clearer.

Update: here is **another new preprint** from a multinational team lead out of Brazil. It enrolled 81 patients in a trial of high-dose chloroquine (*note: not hydroxychloroquine as this post initially stated*) (600 mg b.i.d. over ten days, total dose 12g) or low-dose (450mg b.i.d. on the first day, qd thereafter for the next four, total dose 2.7g). All patients also received azithromycin and **ceftriaxone**(a cephalosporin antibiotic). The high-dose patients showed more severe QT prolongation and there a trend toward higher lethality compared to the low dose. The overall fatality rate across both arms of the study was 13.5% (so far), which they say overlaps with the historical fatality rate of patients not receiving chloroquine. The authors actually had to stop recruiting patients for the high-dose arm of the study due to the cardiovascular events, but they’re continuing to enroll people in the low-dose group to look at overall mortality. The paper mentions that chloroquine and HCQ have been mandated as the standard therapy in Brazil, so there is no way to run a control group, though.

396 comments on “The Latest Hydroxychloroquine Data, As of April 11”

 **Craig Wilson** says:
11 April, 2020 at 10:06 am

The French Dr. does not use control groups because he says it is not ethical to kill people.

[Reply](#)

 **Derek Lowe** says:
11 April, 2020 at 10:16 am

That is indeed his rationalization.

[Reply](#)



Aaron says:
12 April, 2020 at 12:31 pm

Derek,

It looks as though the Brazil study used high doses of Chloroquine, not Hydroxychloroquine. Don't they have different toxicologies?

Reply



Dan S says:
12 April, 2020 at 6:42 pm

Yes. Don't know why they used it. In vitro studies of hydroxychloroquine (HCQ) versus chloroquine indicated HCQ was safer and more effective at lower doses.

https://watermark.silverchair.com/ciaa237.pdf?
token=AQECAHi208BE49Ooan9kkhW_Ercy7Dm3ZL_9Cf3qfKAc485ysgAAmswggJnBgkqhkiG9w0BBwagggJYMII CVAIBADCCAk0GCSqGSib3DQEHAT
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Reply



Germana Pimentel Stefani says:
12 April, 2020 at 9:38 pm

Maybe because most of researches have long experience on chloroquine use for malaria – which is epidemic in North region, specially in Amazonas – where most of the centers that participate are located at. Furthermore, in this region chloroquine is cheap and easily accessible.



Ricardo Nunes says:
12 April, 2020 at 10:08 pm

it is the fault of President Bolsonaro who insists on the use of chloroquine



Dotti Bisson says:
4 May, 2020 at 10:49 pm

The Brazil Study is null and void as far as I'm concerned. Patients with Lupus are prescribed Hydroxychloroquine, they don't use Chloroquine because of the side effects especially if used long term. So it's no surprise that there were problems with it's use in their study. This applies to oranges, not even worth putting that study in the article. It's irrelevant.



Andrew Binder MD says:
7 May, 2020 at 10:16 pm

Did you really mean what you said????!!
How does an in vitro study establish the safety of any given drug? One cannot measure clinically significant adverse cardiovascular effects with an in vitro study.



Victor Rodrigues Ribeiro Ferreira says:
12 April, 2020 at 9:03 pm

Brazil has used more chloroquine and less hydroxychloroquine because of the availability of the drug in our territory. News about the use of hydroxychloroquine led to a shortage of the drug. Chloroquine can be made in Brazil due to the history of treatment for malaria.

Reply



Rodrigo says:
17 May, 2020 at 9:18 am

Yes! The "study" done in Brazil was made without consent of patients or family and the "doctor" in charge is related to a funding by GILEAD lab (clear interest to show Chloroquine as risky and make room for Remdesivir). They treated human beings as Guinea pigs. In fact Chloroquine has 3 to 4 higher toxicity than Hydroxychloroquine. They have killed 16 people and administered a dose 12 times the maximum recommended by Health Ministry.

Reply



Steve says:
12 April, 2020 at 4:34 pm

You should get a megadose of Coronas and be denied this treatment (even though you would be begging for it). People are starting to see you megalomaniac charlatans for what you are. Who in the hell are you to deny informed consent and preservation of health and life to others.

Reply



Clint Eastwood says:
12 April, 2020 at 11:55 pm

Drinking and posting, nice job Steve!

Reply



Richard J Dubocq MD, Family Medicine and Geriatrics says:
14 April, 2020 at 3:51 pm

Clint: “Am I feelin’ “lucky?

Not especially, today! I’m a rural Maine Family Doctor/Geriatrician w/40 years experience.

The Maine Board of Licensure in Medicine has just opened up an investigation for expressing my OPINION about the need of the medical community to prescribe Plaquenil and Zinc (and sometimes Azithromycin) to end the carnage of many thousands from the current COVID-19 pandemic! To date I’ve use these meds to treat persistent Lyme disease, NOT COVID-19! In 20 years of prescribing, not ONE patient has had eye or heart problems!

Clint, my first amendment right to freedom of speech is under attack, just for suggesting a safe, effective treatment of coronavirus infection...HELP! You could help save the world!



theasdgamer says:
18 April, 2020 at 3:28 pm

Dear Dr. Dubocq,

Thank you for speaking up!



Joe says:
13 April, 2020 at 8:59 am

That’s not “informed ” consent

Reply



Olivaw says:
13 April, 2020 at 12:11 am

I’ll take his “rationalization” all day long, given he’s thinking clearly on this, unlike many people around the world, apparently.

This isn’t some dry clinical trial in which people are judging the efficacy of nose drops to clear up the sniffles. He’s watching people drop dead from a virus that fills your lungs with liquid, causing asphyxiation.

He’s got his priorities straight.

Reply



Jim Profit says:
14 April, 2020 at 3:50 pm

Well Raoult’s priority seems to be bragging about efficiency of his choice of treatment while conducting uselessly inconclusive studies where patients seems cherry-picked.. 6 or 26 patients were excluded from the first trial, during the trial.. For the latest trial he chose about 1000 patients amongst 3000, inclusion criteria wasn’t given, obesity is less than 6% amongst selected patients and we know obesese have a worse clinical outcome with covid-19.. 15% of french people are obesese.. In France we have a joke about Raoult: his treatment only works inside his insitute because of the Mistral, a strong wind of southern France, which disperses the virus

Reply



Michael Lakher says:
14 April, 2020 at 4:59 pm

The French doctor has freedom that American doctors do not. Establishment here is a group of snooty, nasty idiots. The purpose of Hydroxychloroquine is not to cure, but prevent patients from getting worse. It has to be used with other medications and supplements. See a lecture by Drbeen on youtube. It is important that doctors in the United States are allowed to treat individual patients, and not faceless groups.



Steingrimur N Hermannsson says:
18 April, 2020 at 11:30 pm

My wife and I used hydroxychloroquine: HCQ 200mg QD for my wife and 200mg BID for myself, for 7 days, along with AZM 250mg QD for fives days — we had coughing, headache and fever that persisted for about 1 week and was getting worse! My wife actually lost all sense of smell. We were feeling very bad. We decided to take this medication based on empirical evidence of COVID-19 “symptoms.” In other words, we wanted to prevent progression to possible ARDS. (I’m in my 60s.) The next morning, after taking this medicine, we felt no further symptoms. My wife had a slight cough, but she was also on a low dose of HCQ (200mg QD). By the way — no side effects; our symptoms never returned. The current situation is really heart breaking in the United States; tens of thousands of lives are being needlessly lost. This is the great tragedy of the 2019 Pandemic.



Bill D says:
16 April, 2020 at 10:05 am

That was Jonas Salk’s excuse too. The measures we must resort to when time is not on our side, measures that make experts uncomfortable.

Reply



Sue says:
18 April, 2020 at 1:40 am

That’s a vaccine.

Reply

Winston Galt says:



22 April, 2020 at 12:57 pm

I think that you’re missing the point .



jayram says:
27 April, 2020 at 9:17 am

Vaccines are just as controversial, if not more so.



Dennis says:
28 April, 2020 at 8:33 am

So if a vaccine is the ultimate answer please tell me when the HIV vaccine was made available? Also when was the vaccine for the common cold introduced, I mean after all it too is a coronavirus. My fever is people are not be honest about the potential for a vaccine.



no body says:
11 April, 2020 at 10:26 am

Then, is it ethical to treat patients with drugs not proven to be efficacious for COVID-19, but known to increase cardiovascular mortality?

Reply



Oudeis says:
11 April, 2020 at 11:29 am

Right . I thought his comment was cutting sarcasm. “He doesn’t want to kill people, so he gives them drugs that might kill them and makes sure there’s no control group you can use to tell whether the drugs are killing them.”

Reply



schobes says:
11 April, 2020 at 11:36 am

if you open your eyes you can easily find control groups all over the planet .

Reply



David says:
11 April, 2020 at 1:22 pm

schobes: If you use control groups that are not well-matched at baseline, you risk spurious conclusions. Say you work at a hospital in a wealthy section of town, and compare your patient outcomes to those from the charity hospital in city center. Or say you treat a group of hospitalized patients but subconsciously exclude the sickest of them, and compare to all hospitalized patients. In those instances, a drug with no effect would look good, because you are comparing to a non-matched control.

Randomization ensures that the active-treatment and control groups are drawn from the same pool, and with sufficiently large sample sizes it balances baseline factors to protect from these forms of bias.



Anonymous says:
12 April, 2020 at 8:44 am

There is no “reply” button for David’s comment, so I am replying to schobes, above. (Why did the inner level reply buttons disappear on this topic?) There have been studies about bias in situations where participants are supposed to remain impartial but do not remain so. E.g., teachers told that certain students scored well for high achievement (even when they didn’t) gave extra attention and higher grades to the “marked” students compared to peers over the course of the year. I can’t find the sources, but nursing staff can also show bias when they are told that certain patients are in a study and others are not. Those thought to be in the study get their pillows fluffed more often and the hoi polloi get ignored due to understaffing; that kind of thing.



schobes says:
11 April, 2020 at 11:34 am

hydroxychloroquine is known to NOT increase cardiovascular risks. the combination is shown to increase the risk for a special subset of patients – but it does not increase the risk as much as you believe: those incidents are so rare that you have to look at sample of MILLIONS to find the effect. if you double a very low risk it’s still a very low risk. many people seem to misunderstand that, including the author of this article.

it’s totally not “fortunate” that it does not appear in raoult’s study, because it’s still the expected case that nobody dies on heart problems within a few days of this medication, even with a sample size of 1k.

Reply



Alan Goldhammer says:
11 April, 2020 at 3:24 pm

@schobes – please take a look at the drug label. “Cardiac Effects, including Cardiomyopathy and QT prolongation: Postmarketing cases of life-threatening and fatal cardiomyopathy have been reported with use of PLAQUENIL as well as with use of chloroquine. Patients may present with atrioventricular block, pulmonary hypertension, sick sinus syndrome or with cardiac complications. ”

Reply



theasdgamer says:
11 April, 2020 at 11:45 pm

Sure, after taking Plaquenil daily for ten years, one percent of the patients experience cardiac arrhythmias.



John V says:
12 April, 2020 at 9:40 am

To cure covid they take 5-6 times the HCQ « daily dose ». You can't compare with the normal usage.



Maureen Wilbur says:
13 April, 2020 at 1:11 pm

I have Lupus, am 73years old and have been on hydroxychloroquine or plaquenil for 30 years. For the first 25 years, I was prescribed 200mg/day. I'm now taking 100mg/day. I checked for eye side effects every year and have never experienced eye or heart problems. So far, I do not have covid-19. I don't understand the hysteria coming from many on the use of this drug. It's saved me and my quality of life. Before my rheumatologist prescribed hydroxychloroquine, I suffered sever bouts of pleurisy or inflammation of my lungs with severe pain and shortness of breath.



mario lento says:
13 April, 2020 at 5:24 pm

Plaquenil is not hydroxychloroquine. hydroxychloroquine is extremeley safe, especially for short term use. The cardio stress from having Covid 19 is a real concern. Not so much hydroxychloroquine.



Derek Lowe says:
13 April, 2020 at 5:42 pm

Plaquenil is a brand name of hydroxychloroquine – this is easy to check. Please get your facts straight.



mario lento says:
13 April, 2020 at 5:29 pm

Alan: I was wrong. I mistook Plaquenil for Chloroquin. Still in this use, for 5 days, the side effects are rare, and screening for people with high potential for side affects can be done.



Dah-veed says:
13 April, 2020 at 6:48 pm

When I was in the Peace Corps in the late 1980s, I took Aralen (chloroquine) for 2 1/2 years. We were never warned about its supposed cardiac risk. All of Peace Corps was on it: thousands of volunteers in Malaria-infested countries. Surely if it was that problematic, other drugs would have been prescribed? Over 3% of volunteer was older than 50, so there should have been real concern? I suspect, as now, the risk was in the noise level.



mario lento says:
13 April, 2020 at 9:01 pm

Derek Lowe says (at 5:42 pm): Please get your facts straight, which I corrected before you told me as much. But thank you for checking!

mario lento says:
13 April, 2020 at 5:29 pm

Alan: I was wrong. I mistook Plaquenil for Chloroquin. Still in this use, for 5 days, the side effects are rare, and screening for people with high potential for side affects can be done.

Now that the nitpick, which we both saw, is corrected; What I wrote was importantly informative and people should know facts, along with the horror stories. Context is everything.

Hydroxychloroquine is extremely safe, for short term use and at the dosage used by most for Covid @ 200mg BID and for day one and once per day for 4 more days. However, the cardio stress from having Covid 19 is a real concern. Not so much hydroxychloroquine when properly used. You will find out, if you don't already know, that it is in fact a wonderful treatment when used early.



Maddy says:
13 April, 2020 at 10:51 pm

There is a condition known as Long QT syndrome. It is highly hereditary and some forms are associated with deafness. People diagnosed with that condition cannot/should not take a drug which further extends the QT interval. That does not mean the average healthy person has the same risk of cardiac issues with this drug.



theasdgamer says:
15 April, 2020 at 11:04 pm

John V, let's look at what rheumatology says as far as dosing goes:

"Hydroxychloroquine comes in an oral tablet. Adult dosing ranges from 200 mg or 400 mg per day (6.5mg/kg). In some cases, higher doses can be used. It is recommended one tablet twice daily if taking more than one tablet. It is recommended to be taken with food."

Now let's look at what rheumatology says about side effects:

"Hydroxychloroquine typically is very well tolerated. Serious side effects are rare. The most common side effects are nausea and diarrhea, which often improve with time. Less common side effects include rash, changes in skin pigment (such as darkening or dark spots), hair changes, and muscle weakness. Rarely, hydroxychloroquine can lead to anemia in some individuals. This can happen in individuals with a condition known as G6PD deficiency or porphyria.

In rare cases, hydroxychloroquine can cause visual changes or loss of vision. Such vision problems are more likely to occur in individuals taking high doses for many years, individuals 60 years or older, or those with significant kidney disease."

<https://www.rheumatology.org/I-Am-A/Patient-Caregiver/Treatments/Hydroxychloroquine-Plaquenil>


Rheumatologists expect to dose their patients with HCQ for at least five years at these levels and look for indicators that the patient is failing to tolerate HCQ so that they know when to switch them to another drug. HCQ in patients with kidney disease has to be monitored a little carefully. If the kidneys are allowing levels of HCQ to rise dangerously, the dose needs to be altered.

I am not a physician, but I have some critical thinking skills and I can dive deep.

 **Maggie** says:
17 April, 2020 at 5:01 pm

Your also described what can also happen to you when you become sick from cov19 and there's more you could wind up on a Vent and that's the end.

I for one would want a fighting chance with the hydrochlorquin. And who's to say what the vaccine that they're taking short cuts to get it to market will be safe.

 **Frank17** says:
20 April, 2020 at 8:33 pm

Perhaps HCQ or camostat (enveloped) could be administered in liposomes by inhalation at much lower doses than in systemic therapy (or supplementing it), thereby reducing side effects and risks, perhaps the HCQ concentration in the lysosome would then be sufficient to achieve an antiviral effect. One could imagine a clathrin-mediated endocytosis. Is anyone aware of studies on this?

 **DjmoC** says:
12 April, 2020 at 5:41 pm

Bingo


Reply

 **Isaincu Tiberiu** says:
13 April, 2020 at 4:34 pm

Hysteria come from the money they take from BIG FARMA Gilead want to sell us Remdesivir with 1000 dollars a pull like the drug for hepatitis c virus sobusivir. That's where the hysteria come.

 **Derek Lowe** says:
13 April, 2020 at 5:44 pm

Remdesivir is not a pill, for one thing.

 **Iyer** says:
13 April, 2020 at 1:39 am

HCQ is literally an OTC drug in India and millions take it regularly. If there were large risk of cardiovascular issues .. would have been apparent. So overall a low risk I would say. .

Reply

 **Umberto Ucelli** says:
13 April, 2020 at 8:14 am


To those who say HCRQ is very safe I'd say : look up the drug leaflet.
AND as a matter of fact 43 side effects of HCRQ or its combination with AZTM including 4 sudden deaths plus 3 cardiac arrest (happily defibbed) has been reported last week in France.
Tip of the iceberg.
Thank you who ?

To those who have doubts on scientific integrity look up :
<https://forbetterscience.com/2020/03/26/chloroquine-genius-didier-raoult-to-save-the-world-from-covid-19/>

Reply

 **theasdgamer** says:
18 April, 2020 at 3:33 pm

Sure, combine Plaquenil with zpak and you can have excessive QT prolongation eventually. I trust the rheumatologists who say that Plaquenil is "well tolerated" since they prescribe it more than anyone. Of course, a very low percentage patients might not tolerate Plaquenil, so docs have to look at the patient profile. Big surprise.

 **YourMom SaysYouKnowBetter** says:
13 April, 2020 at 1:45 pm

I took plaquenil for RAD (hydroxychloroquine) and it has horrible side effects. Just taking it short term (so even after stopping medication) is a commitment to NeuroOpt hamology and Cardiovascular exams for the rest of your life.

I've read the studies and would advise others to stick to the full data rather than the summaries. It doesn't work, or if it does help it's at an unquantifiable minimum. Researchers must persist because the consistent push from the White House has not allowed them to move on (trump coincidentally owns stock in the company which produces it).

I understand the 'why not' argument, but there are a lot of reasons why not- the biggest being that we are wasting time. People given the drug in Italy and Spain which maintain the highest death rates (4% & 11%).

It's doing more harm than good and I imagine history will not look kindly upon those continuing to insist upon their 'feeling' that it's a cure rather than allowing researchers to move on to the things that may be more expensive and less profitable but that we KNOW work- such as plasma infusions from those affected.

This is capitalism and one Leader's gut instinct (& coincidental stock portfolio) at work. If it isn't about \$ for him, than it remains a cause of potential bias for those influencing him aka Big

Pharma who have his ear as one of his largest donors in the current election cycle.

There's no profit for them in plasma reproduction. We KNOW it works. In nearly EVERY test case it has positive, often lifesaving results. One case for example showed negative results for the virus within 24 hrs. This is what we should focus on. Provable, repeatable results. Follow the money.

Reply



Scott Charles says:
13 April, 2020 at 5:55 pm

Your talking points give away your predisposition. ("One leader", careful not to overplay your hand "Trump". Not all facts come from clinical trials, and not all clinical trials produce FACTS.

As Mark Twain so rightly said- "There are lies, Damn lies, & Statistics."

<https://www.usatoday.com/story/news/factcheck/2020/04/08/fact-check-did-michigan-dem-credit-trump-her-covid-19-recovery/2967210001/>



D B says:
14 April, 2020 at 1:31 am

Trump owns something like 450.00 worth of something in a mutual fund that makes HCQ, supposedly. The entire cocktail costs 20.00 a person. Gilead pharmacy will make billions from its med. I've met people now who have said HCQ have saved their lives and I've seen the stories online. What about the democratic congresswoman who says trump saved her life by mentioning the meds in which case she asked the Dr. for it. I think it's important to take the zinc with it. The zinc keeps it from replicating. Another lady I met said her 86 yr. old mother in law was in hospital dying from covid. She asked her Dr. for it and she too survived and was better within hours. A Rheumatologist out of NY says he has been giving his patients the HCQ for yrs and it may cause a rash or stomach ache. Says he has never lost a patient to it. Says it is safe...especially since you only need to be on it for 5 days.



MyTwoCents says:
7 May, 2020 at 10:01 am

I was on HCQ for 6 months in Haiti to prevent malaria. The only side effect was an upset stomach. This was 10 years ago and I haven't had to be checked periodically for any side effects, as I am very healthy. I'm sorry that there may be a small percentage of people that it has worse side effects for, but in all the studies I have seen, those are very rare.



M says:
12 April, 2020 at 1:35 am

He uses low dose for 4-5 days in France, the study associated the deaths with an increase of heart issues with a month of use and the hospital showed problems with the high dose. The biggest difference, studies are using it on those in the ICU after disease has advanced. In France and all other successful area, they start the Drug sooner, before lung damage to keep folks out of the hospital. This is something this article fails to mention. Early. Low dose. Excellent results in keeping folks out of the hospital! Short term. Low dose. Extremely low chance of side effects. My son and his HS friends took it for 10 days before their trip to Rwanda. No problems. No malaria.

Reply



DocSiders says:
12 April, 2020 at 9:29 am

The HCQ mechanism interferes with viral replication. Therefore it must be taken early before viral concentration are too high and before too much tissue damage has occurred.

Zinc must also be administered. That is not even mentioned here.

Reply



Matt says:
12 April, 2020 at 2:00 pm

@DocSiders

The abstract from Dr Raoult makes no mention of zinc either, despite your claim that is necessary. Do you (still) believe he is getting good results?



JI Clarkson says:
12 April, 2020 at 5:28 pm

Replying to DocSiders: HCQ does not interfere with COVID-19. That only applies to viruses that enter cells by endocytosis. the novel coronavirus enters via the spike protein, so endosomal processing is not involved.



theasdgamer says:
15 April, 2020 at 11:22 pm

There is mixed data about the effectiveness of HCQ. If we apply Sherlock Holmes' style thinking, we would hypothesize that some of the patients may be taking zinc supplements without the doctor's knowledge. This would explain the mixed results. One group was more strictly monitored (no zinc) and they showed negative results.

HCQ is a zinc ionophore which enters cells via the ACE2 receptor. This can be easily verified online. It can also be verified that zinc interferes with viral replication through binding to the RNA-dependent RNA polymerase. Interestingly, the coronavirus also enters cells via the ACE2 receptor. If the viral load is light, HCQ may be effective in slowing the virus' replication. If the viral load is heavy, then it seems that zinc supplementation is essential. HCQ targets zinc to the cells most likely to be infected by coronavirus.

I can further add that at the medium size hospital where my physician daughter works, the ICU docs are regularly treating severely ill covid patients with 200mg Plaquenil bid (maybe

400 mg on day 1)/220 mg zinc/vitamin C/vitamin D. Maybe packed cells if the pO2 goes below 92%. So far, only one death out of 40 patients. The hospital is located in the inner city and patients often are AMA and distrustful of physicians generally, so the death may be the result of patient noncompliance with the treatment regimen.

 **D Lynne** says:
30 April, 2020 at 3:35 pm


Thank you M! I am so frustrated with people focusing on the potential side effects from Long Term, High Dosage, at advances stage of the disease! We need low dose, short term use at ONSET of symptoms! Prescribed by our general practitioner, so they can exclude us if we are among the small Small group that cannot tolerate the drug well!

Reply

 **Enoughalready911** says:
12 April, 2020 at 1:43 am

Please explain why 3 people I know who have mild RA and 1 with lupus have taken HCQ for YEARS with little concern for heart issues? They don't the potential for death in 1-2 weeks, never been on ventilators, never put into induced comas trying to give them extra time like the friend of our family... he was almost gone and at the last hours they gave him the HCQ-zpak-zinc combo... he woke up 8 hrs later and started breathing fine on his own. 24 hrs later he went home. Call it whatever the F you want, but story after story are coming out the same way. You can use your ivory tower perspective all you like but when it's YOUR family or YOUR friend there dying just know people like you will be responsible for their death as you downplay this drug combination. Or do you have a better solution? One that NO ONE ELSE has? One that has a 60+yr track record for safety. One that cost \$20, is easy to produce and is off patent so ANYONE fda approved can make it. Only Morons claim doing NOTHING is better than trying this very low risk option.

Reply

 **stephen** says:
12 April, 2020 at 2:11 pm


Alinia is a better option.

Reply

 **Jason Turner** says:
12 April, 2020 at 4:34 pm


Amen

Reply

 **Anonymous** says:
12 April, 2020 at 5:30 pm

Let me break it down for you. Medicine is all about weighing the possible benefits against the known dangers of any treatment. As of today, the clinically proven risks of this treatment outweigh the anecdotal evidence of any hint of a possible improvement in COVID-19 patients. This means that if everyone with COVID-19 were given this treatment, more would die than if no treatment was given at all. That is what the science says. So whoever says, "You have nothing to lose" is the real moron here.


Reply

 **Umberto Ucelli** says:
13 April, 2020 at 8:22 am


You are mistaken.
There is not an ounce of data telling this drug works. Not even a milligram

 **Mary Jo** says:
14 April, 2020 at 4:14 am

And notice how half the stories seem to be about people on their deathbed, magically cured by the medication in just hours, while the other half talk about how it ONLY works if given early enough, before someone is hospitalized! They can't BOTH be right. The stories keep changing to keep up with actual data coming out (such as the multiple reports coming out of hospitals that have been using these medications on patients and just not seeing any benefit from them).

 **david** says:
18 April, 2020 at 3:43 pm

Anonymous—As of today the situation is exactly the opposite of what you claim. Society is divided between natural optimists (who create all new things) and natural pessimists (who hate when optimists are proven correct). We don't even have to wonder in which category you find yourself.

 **Wendy** says:
15 May, 2020 at 8:24 pm

Replying to Mary Jo:
COVID has two spikes for two different receptors on different cells. The primary entrance is posited to be via the ACE2 receptor which is widely distributed throughout your body and means the virus can cause almost any symptoms you can name. The other receptor, CD147, is commonly found on immune cells and in my opinion is the more dangerous attack because it can neutralize your immune response and kill you. The spike protein for this receptor is also found on HIV and is how AIDS disables your immune system over time. So, depending on where the virus has landed in a person and how much of the patient's immune system has been disabled is likely a better way to measure whether any antiviral will work.

Julian Stevenson says:



12 April, 2020 at 9:12 pm

Check the dosage. For maintenance in autoimmune diseases, HCQ is taken at 200-400 mg/day. For treatment of COVID-19, 800 mg/day is required to observe any effect. One teaspoon of salt is perfect for a delicious dish; three-teaspoons make it no longer edible.

Reply



Emmanuel Ohannessian says:
13 April, 2020 at 4:19 pm

Here is Dr Zelekno's regimen:

- 1. Hydroxychloroquine 200mg twice a day for 5 days
- 2. Azithromycin 500mg once a day for 5 days
- 3. Zinc sulfate 220mg once a day for 5 days



Jameson Benson says:
12 April, 2020 at 9:35 pm

You really need to come down off whatever snake oil you were sold.

Reply



theasdgamer says:
15 April, 2020 at 11:34 pm

There's a story about a fire at a university. Snow had blocked the roads and the firetrucks couldn't make it to the fire. The maintenance staff discovered some old milkpails in the basement of one of the buildings. The academics debated using the milkpails and ultimately decided against it because the milkpails hadn't been through any double blind peer reviewed trials for effectiveness in fighting fires. They all perished.

I have quite satisfactory critical thinking skills. In the absence of the gold standard of double blind peer reviewed clinical trials, you have to make do with "good enough" anecdotal evidence from clinicians who have lots of success and perception.

Reply



Vic Nee says:
9 May, 2020 at 9:18 pm

I agree with theasdgamer



Sun Kye Kim says:
12 April, 2020 at 5:11 am

Whilst it's very obvious Mr Lowe is very anti-HCQ, and for which, perhaps for good reason, marking it as a dangerous drug is medically irresponsible. It's freely given to Lupus patients, RA patients, Malaria patients ; for which in a lot of 3rd world countries, OTC. Where is your concern in those instances? A lot of drugs with terrible side effects are handed out like candy in the western world, every single day. Where is your opposition to them, Mr Lowe? Social distancing and/or lock downs are measures that have been promoted as panaceas, yet it hasn't been proven beyond a reasonable doubt. Indeed, in some cases, one would say the idea is a complete failure. Anecdotally, of course. Are we, as medical professionals, really that over-starched that we cannot treat our patients based on a balance of knowledge? Are we really that disconnected from humanity that we would put political biases above helping? Are we that incapable of making choices based on probability and not "beyond a reasonable doubt"? Where did this sudden concern come from? It's most certainly never been there before, look at the opioid epidemic in America. Not even to mention the overdosing of antibiotics and mental health medications there.

But suddenly, we're very pious and stiff when it comes to treatments for a supposed "pandemic" that's supposedly killing so many people? (Which, the data suggests, is a fallacy at best).

When looking at this data – the doctors who are against HCQ treatments, the institutions who are against these treatments, I can only come to the conclusion, anecdotally of course, that there is a distinct pattern of political bias overreach and not a whole lot of regard for patients or science.

Reply



lewis says:
12 April, 2020 at 8:26 pm

I don't remember a single doctor telling me about the cardiac interaction on my many trips to Africa.

Reply



Sun Kye Kim says:
12 April, 2020 at 9:39 pm

Exactly. There are a great number of doctors who are comfortable recommending this as a treatment. There are indeed some cases where it shouldn't be prescribed, where it should be carefully monitored etc, like any other drug. These are things we know. The sudden concern is purely political. You'll note that remdesivir is currently being pushed as a great idea, yet the study surrounding that is no more "solid" than anything coming out about HCQ. In fact, it is less solid. You can really sought the medical chaff from the wheat when you see doctors pushing that at the same time as calling HCQ – a known drug – dangerous.

Forget about President Trump. I couldn't give a damn about him or what he says. This is supposed to be about science. We know how HCQ works. Are you asking us to forget everything we've ever learned as medical professionals about a proven drug, just because it ruffles your political feathers?

If so, please don't call yourself a doctor. You, are the quack.
Your concern should be for patients, not politics.

 **mario lento** says:
14 April, 2020 at 2:29 pm

Sun Kye Kim: Your statement "Forget about President Trump. I couldn't give a damn about him or what he says. This is supposed to be about science."

Tells me you are not someone I would listen to. You obviously have shown yourself to the world as being turned into a non thinking being. And you do not understand the science if your reasoning is to not listen to Trump.

We are all talking about the science of a Zn ionophore because Trump brought this cheap treatment to light. So in a round about way, you are listening to Trump... but you're reasoning is clouded by derangement syndrome.


When people try to show through strawman arguments that hydroxychloroquine is not proven, without understanding the science of how it is supposed to work in the case of Covid 19, they do harm and they do it through spreading ignorance.

There is no use of an article that steers the conversation away from the science.

So here it is:
FACT: hydroxychloroquine is a Zn ionophore.
FACT: Zn enters the cells (if Zn is available through supplementation) which are acidic by being carried by the ionophore
FACT: Zn absolutely interferes with RNA replication
FACT: Coronaviruses are an RNA virus
FACT: YOU NEED AN IMMUNE system to kill the virus
FACT: Almost all side effects from hydroxychloroquine happen over long term, so a 5 day treatment at 400mg and 200mg a day is safe. A doctor should be able to make the call.


The theory is that if you can stop replication, your immune system will have much more success in killing the virus.

THEREFORE:
If you do not supplement with Zn, your success will be lower
If you start treatment too late, pneumonia and secondary infection caused by a cytokine storm may be too far progressed and you might die or get permanent damage.

 **John k** says:
12 April, 2020 at 11:11 pm

Absolutely well said. Would love to get some more insight from you as a logical medical professional.

Reply

 **David Young MD** says:
13 April, 2020 at 9:22 pm

Don't be ridiculous. Derek Lowe is just pro-truth.


None of us are anti-HydroxyChloroquine. We just want to be honest about whether it works a little, a lot, or not at all.

Remember, if it works a great deal, then why are people still being hospitalized for Coronavirus?

Reply

 **theasdgamer** says:
15 April, 2020 at 11:43 pm

My understanding is that Plaquenil is no longer available in many places except in a hospital because of decrees by governors and the suggestion of the CDC. So that might explain the wide hospitalization of covid19 patients.

 **HC** says:
16 April, 2020 at 11:12 am

Dr Young,
To answer your question, many people are hospitalized with Covid BECAUSE they are most likely NOT following dr Zelenko's EXACT regimen: they wait too long to start it, or they omit Zinc or Azythromicin or use lower dosages than Zelenko.

 **Mark Buchbinder** says:
18 April, 2020 at 12:38 am

Asking as someone with no medical training: why are NONE of the NIH supported clinical trials of HCQ not listing zinc as one of the candidate therapeutic agents? That is, there are multiple trials of HCQ with other drugs, but there is not even monitoring of plasma zinc concentrations. I am wary of Trump Derangement Syndrome explanations but I am curious. Thank you all.

 **Dr Wolf** says:
8 May, 2020 at 10:59 am

Well said. Also subsequent post "well said". One of the replies to your post clearly did not understand your statement that you don't give a damn what Trump said about HCQ. Me neither. I don't understand why emotion and politics has dominated this potential treatment. Disheartening.

Reply

 **Vic Nee** says:
9 May, 2020 at 9:20 pm

Amen to that Sun Kye Kim

Reply

 **Gary Jones** says:
26 May, 2020 at 4:31 pm

I like your reply, Sun Kye Kim. Right on!! I am also using this opportunity to discover why my contribution does not appear here. Maybe too long? Maybe politically incorrect? I want to see if this is published and if so I might have to make modifications on my personal response. But again, I like what you say.
Gary L Jones, MD, PhD, FAAN, ABPN (neurology)

Reply

 **Gary L Jones** says:
26 May, 2020 at 7:22 pm

Agree. The author states that the cardiac mortality is doubled (to paraphrase). But when did it become unpopular to report ‘incidence?’ So we have a single cardiac mortality in over 300,000 cases; if we double that it is two cases of cardiac mortality in that population (just an example to exemplify the problem). Elsewhere: Virtually everyone I have asked has not been able to answer the following question: “What is the serum half life of hydroxychloroquine? It is over 20 days. This means that it will take over 3 months to reach plateau steady state drug concentrations; which means that if this drug works it is effective at very low dosage. OR, as Raoult’s study suggests, ‘much better results are seen with the combination (with the abx); and if this is truly the case it raises the intrigue of possible synergy. Synergy is a lovely concept that always demands investigation. Why is it that I don’t see discussion regarding drug concentrations and pharmacokinetics. Although I don’t typically see COVID-19 pts (MD neurologist) I am indeed intrigued by the pharmacology, as I also have a PhD in that field and p’kinetics is an area of interest. In other words, it is difficult to see how a 5 day course of HCQ would be associated with drug concentrations that would be effective for anything, unless it is either extremely efficacious or phenomenally potent for said indication; or there is synergy with the abx. I confess that I have not read everything that has been published on the topic and may easily have missed something; but I have not seen pharmacokinetics addressed. At this point all I see is liberal lunacy. When you are ‘all knowing’ it is easier for everyone to jump on your bandwagon rather than to contemplate rationally. As concerns those that cite the labeled side effects, don’t you know that if you fart too much that will be included as a listed side effect. You will not see any labelling that cites the incidence of cardiac mortality. Of course, in over 30 years of clinical practice in neurology, I have also seen many hundreds of RA or lupus patients that are taking HCQ, and I have not seen a single case of cardiac complication. I have polled every cardiologist I know, 40 year veterans, and none has ever witnessed such cardiac mortality. There is too much bias in the reporting of opinion regarding the anti-viral efficacy of this/these drug(s). Why? Most likely because Trump popularized it.


 **Derek Lowe** says:
26 May, 2020 at 9:23 pm

If you put too many links in a comment, the spam filter grabs it and it ends up a folder literally named “Trash”. Once in a while I go through there rescuing things, but if you put in a comment and it doesn’t show up, just email me directly and I’ll save it.

 **Cindy Anderson** says:
12 April, 2020 at 2:59 pm

I was given cardiotoxic chemotherapy drugs when I had cancer. And their success rate was not overly impressive but it was all they had at the time n the alternative just like with this virus... death! I do not understand this! This is purely political. Docs have been using off label drugs for years taking into account contraindications and required monitoring. I have been prescribed off label drugs on occasion. I do not understand this at all!

Reply


 **Chris** says:
13 April, 2020 at 1:19 am

Death is not the only alternative to HCQ, that’s the problem.

Most people who end up with COVID-19 will recover; even most people who end up hospitalized will recover. (If you have to be put in ICU, the odds start shifting, and for those who end up on a ventilator, recovery seems to be no better than 50/50 and possibly much much worse, but most diagnosed with COVID-19 don’t need to be hospitalized, and fewer than a quarter of those who are hospitalized end up in ICU. You hear about the worst cases, but most cases aren’t in that category.) The proponents of this drug are mostly claiming that if you wait to start HCQ (or HCQ+zinc, or HCQ+Z-pack) until they’re in ICU, then that’s too late; you have to start therapy before they get that sick. However, the majority of patients who aren’t that sick yet will _never_ be that sick, so how do you determine who recovered because of HCQ and who was going to recover anyway?

If somebody was likely to recover anyway, without any treatment, but you gave them a drug that caused side effects that harmed them, have you done them a favor?

Reply

 **mario lento** says:
13 April, 2020 at 5:11 pm

Chris: By your slightly flawed logic, then just let everyone get sick and there’s nothing to worry about. I know you did not mean that, but that is where your statement leads. The idea that taking Zn with an ionophore leads to halted replication of the virus, with almost zero side affects, is that the hospitalizations can be mostly prevented. Studies that add antibiotics or do not add Zn, or use the treatment after they are severe misses the point that early treatment with Zn prevents need for antibiotics and hospital visits.

As you clearly and stated well, things get worse as you head towards the end point of ventilator treatment. So why let it get there?

theasdgamer says:
15 April, 2020 at 11:51 pm



Let’s consider Zelenko’s results and accept them at face value for the sake of argument. 699 patients. 0 deaths. 0 intubations.

Let’s assume a covid mortality rate of 2%. You would expect around 13-14 deaths with 699 patients.

Now let’s try to figure out the chances that Zelenko’s results are NOT better than a placebo.

You’d have to get 1-98 699 times throwing the dice. Mathematically that figures as 0.98(exp699). Oh yeah, that’s 13 times. (0.98(exp699))(exp13). The answer is nil. Zelenko’s results are better than a placebo. With zero intubations, MUCH better.



TedB says:
12 April, 2020 at 9:41 pm

It is proven to all those not blinded by science.

Reply



Joe C says:
13 April, 2020 at 5:32 pm

Remember – every disaster movie begins with a scientist being ignored.

Reply



mario lento says:
13 April, 2020 at 4:47 pm

“Then, is it ethical to treat patients with drugs not proven to be efficacious for COVID-19, but known to increase cardiovascular mortality?”

This is a strawman argument. It is 100% known how hydroxychloroquine is a Zn ionophore. Taking it with a Zn supplement in fact loads cells with enough Zn to stop the virus from replication. That is not in dispute. I had Covid 19 and cured myself in 5 days another Zn ionophore and Zn. I used quercetin.

Reply



David Young MD says:
13 April, 2020 at 9:15 pm

Look Mario, everyone who has Coronavirus is taking Hydroxychloroquine. Well.. probably 90 percent are. At least 90 percent of those who are ill enough to get hospitalized. There is plenty to go around, and the hospitals have priority in ordering it. And think about it, with all the rage of how great Hydroxychloroquine is, would anyone not want to be on it? So, think about it, everyone has been on it for the past three weeks. So, if Hydroxychloroquine is as good as you say it is, as good as Dr. Raoult says it is, well, nobody should be dying any more. Right? I mean, it is a wonder drug. It did wonders for you, right? Well, every hospitalized patients have been taking it from day on. You would think that such a miracle drug would have reversed everything right away. No... as a physician I am hearing story after story of people being admitted with Coronavirus and being put on Hydroxychloroquine and then progressing get worse. I hope that Hydroxychloroquine helps some, but I don't see that it is a miracle drug. And if you want to believe some conspiracy theory that patients are being denied HydroxyC, then you go ahead and believe if it makes you feel better. But let me tell you, it is not true. They are all getting Hydroxychloroquine. So... no one is dying any more, right?

Reply



Karl Brooks says:
13 April, 2020 at 11:57 pm

David Young, you are either not an MD, merely an Internet pretender, or you are a curse on the medical profession. You lack the reading comprehension to respond to mario lento's comment and so instead jagoff on a rant about standalone HCQ.

Get a life or find a new line of work.



mario lento says:
14 April, 2020 at 1:57 pm

David Young MD: You are obviously not responding to words I have written in your unhelpful hysterical diatribe.

I never mentioned conspiracy theories or anything resembling them.

You on the other hand failed to address the specific science and mechanisms, maybe because you don't know. So here it is for you. Hydroxychloroquine is a Zn ionophore, like quercetin. I took quercetin and Zn. There was no treatment for me so I treated myself.

So hydroxychloroquine needs to be coupled with a good Zn source esp if the patient is low in Zn.



D B says:
14 April, 2020 at 1:37 am

Can you tell me how you cured yourself with quercitin?

Reply



mario lento says:
14 April, 2020 at 2:12 pm

Thank you Karl Brooks and to D B. I have known for a while that Quercetin helps make Zn available to cells. I did not know the term ionophore until Covid 19.

Normally I take several juiced powders and try different brands to keep a variety of good foods flowing through me. I have always had asthma growing up and now in my mid 50's, do

not want to die of suffocation. So when I catch any cold or flu, I pump up the known nutrient s which kill viruses. So when I was sick I bumped up Zn to about 75mg in small doses from several forms and the juiced powders in the morning with water and a little protein.


Normally I get about 15mg daily of Zn: 1 ‘CA/Mg/Zn’ capsule (from Costco) 3 x day (label dosage is 2 pills so I get extra). I also take D3 2000 IU in winter 3 x day. Vit C 1gram, 3 x day. Plus B complex and other stuff.

When I am sick I take wellness formula by source naturals. 6 capsule 2 or 3 x day. That has extra Zn too which gets me over 75mg Zn. I take a 500mg quercetin in capsule 1 x day and that will work fine.

I had the fever and lung rumbling aches and pains for 5 total days and then it literally stopped. I did need to take an inhaler with Albuterol to breathe.

 **MJY DVM** says:
15 April, 2020 at 2:05 pm

Worth noting in this section of the thread, zinc and zinc ionophore studies did indeed show inhibition of some retro viral replication in vitro. Similar studies using chloroquine and cancer cells also demonstrated that the combination of chloroquine and zinc could induce apoptosis (cell death). The dose makes the poison, and the recommended HCQ doses for COVID19 are higher than that for malaria or rheumatism, which makes adverse effects more likely.

 **H C** says:
16 April, 2020 at 10:55 am

There should be large studies testing Dr Vladimir Zelenko’s regimen 200 mg plaquenil BID, 500 mg Azythromicin QD, 220mg Zinc Sulfate QD, all drugs given for 5 days AT THE FIRST INDICATION OF ILLNES FOR PATIENTS OLDER THAN 60 or younger ones with ONE additional risk factor(obesity, diabetes, HTN, etc) without ANY delay to wait for Covid19 testing if it would take more than a few hours to get results, and use clinical signs alone. The OUTCOME to be measured is RATE OF HOSPITALIZATION AND RATE OF DEATH in THIS GROUP OF PATIENTS, compared to untreated historical controls. The outcome IS NOT whether they get the disease- they WILLGET IT ON DR ZELENKO’S REGIMEN, BUT whether or not the disease they get is overall Milder than the historical controls. Let’s get a large quick study on THAT, because if Dr. Zelenko’s drug cocktail does lead to mild disease in HIGH risk patients when used IMMEDIATELY, before the disease progresses, THEN IT IS THE GAME CHANGER PRESIDENT TRUMP HOPED FOR INDEED!

Reply

 **theasdgamer** says:
16 April, 2020 at 11:05 am

Not with zinc sulfate. Zinc gluconate is a better choice.

Reply

 **davidgmillsatty** says:
18 April, 2020 at 12:45 pm

That is the zinc that is in the product Cold-Eze. When this product first came out, there were a couple of double blind studies that proved its efficacy against colds.

<https://www.coldeeze.com/en/our-proven-clinical-studies>

 **davidgmillsatty** says:
18 April, 2020 at 12:51 pm


The articles I referred to:

<https://www.coldeeze.com/-/media/coldeezecom/pdf/cleveland-clinic-annals-of-internal-medicine.pdf?la=en>

<https://www.coldeeze.com/-/media/coldeezecom/pdf/dartmouth.pdf?la=en>


 **theasdgamer** says:
18 April, 2020 at 3:35 pm

Ok, maybe Coldeaze filters out cadmium well from the zinc sulfate. For supplements, I’d go with gluconate.

 **Richard** says:
20 May, 2020 at 1:47 am

First Know the difference between chloroquine and Hydrochloricquinn before giving anybody any advice please.

Reply

 **Jeong Yeob Kim** says:
11 April, 2020 at 12:46 pm

Let’s be honest here, Raoult’s a quack. His studies have repeatedly been criticized for sloppiness and outright misrepresentation of facts. His own publishers have criticized his work, and his past actions cast doubt on his self-proclaimed role as a medical researcher. He’s the perfect Trumpian doctor in the Post-Truth Age.

<https://slate.com/news-and-politics/2020/03/didier-raoult-hydroxychloroquine-plaquenil.html>

Reply

 **Tom Boyer** says:
11 April, 2020 at 3:19 pm

<http://expertscape.com/ex/communicable+diseases>

He may be a lot of things but he's not a quack. By this measure, Raoult is No. 1 most cited researcher in communicable diseases in the WORLD based on 71 articles over the last 10 years. (and BTW the research for those papers is done by 200 people at that clinic, so it's not Didier Raoult by himself).

So odd that American publications ignore that and portray him as dishonest or crazy.

It's logical that the Marseille clinic would have tried malaria drugs against C19 because they have a ton of experience with malaria — and they found something that is promising. Now Raoult's research is caught up in the fight over "Trump's drug" which is unfortunate — I doubt he gives a fig about American politics.

While the rest of the world argues and the CDC dithers, this clinic keeps treating people with a death rate that, if you could transplant that to Paris or New York, would save thousands of lives.

Maybe it has nothing to do with HCQ, maybe it's something else in the methodology, but unless they're secretly hiding bodies in the basement, it looks like something is working for those patients.

Reply

 **Clayton.** says:
11 April, 2020 at 10:59 pm

Perfect!!!

Reply

 **Jeong Yeob Kim** says:
11 April, 2020 at 11:50 pm

You can't be a credible medical researcher without conducting the gold standard in research:

THE RANDOMIZED CONTROLLED TRIAL (RCT)

https://en.wikipedia.org/wiki/Randomized_controlled_trial

In both Hydroxychloroquine studies released by Raoult, there's not even a control group.

Simple thought experiment.

Let's say we're confronting the common cold for the first time and we prescribe aspirin to a thousand infected people with no control group. Out of that thousand, 999 people recovered and only one person died. Without a control group, you can state that aspirin has a 99%+ success rate. However, if we include a control group—one group get the aspirin and the control group a placebo—we'll quickly see that the previous 99%+ success rate was an illusion.

With Covid-19, we know that most people recover on their own, and we're even seeing outliers of people who recover even though they're older and have underlying health issues (and people who die even though they're young and healthy). Without a large RCT completed, we won't know if HCQ works against Covid-19. End of story.

Raoult publishing highly-criticized papers (by his own publishers!) with no control group is nothing by anecdotal evidence at best, but with his history of manipulating data, operating a "study factory," and boosting HCQ with no RCTs is quackery.

Reply

 **Cyril Foussé** says:
12 April, 2020 at 5:40 am

In your story you are neglecting some very important data to make your point: you don't consider the reduction of the viral charge and the velocity of that reduction. And that is crucial to fight the propagation of a virus during an epidemic.

Such details would be very welcomed against the measurement done in that study if you want to debate seriously.

You may argue that patients are recovering by themselves and that is fair.


But how quick?

Pr. Raoult has explained he is practising medecine and not research in a middle of an epidemy and that he has absolutely no intention to follow the methodologists during that special time. In his mind, the approach of the methodologists is not consistent for an unknown virus during an epidemic. He defines their methods as research methods and not Medecine.

He argues that the history of medecine has seen many different approaches and that the methodologist's one has not to be a blind religion, especially when medecine is about providing a cure vs a scientific demonstration and has to be highly pragmatical. Furthermore he has explained that the method opposed to his practise of medecine is the result of a strong push made by the laboratories in the very last decades, that is nowadays too largely imposed as the unique standard during medical studies, resulting into a too homogeneous formatting of spirits creating obstacles when out-of-the-box thinking is required in cases of urgency. He bases his reasoning on his knowledge of epistemology in Medecine on one hand, on his speciality of virology and infectious diseases on the other hand (and he is a researcher too, by the way), considering the imposed method is highly unmedical and unpragmatical in the case of a new epidemic.

Sorry if I misunderstood his thinking, and for my poor english.

I personally believe the deep scientific debate he is activating that way, independently of the HCQ, aso. treatment he is promoting, may produce very interesting results in the future, as open minded people must be always welcomed.

 **JJM** says:
13 April, 2020 at 10:33 am

Isn't Dr Didier's point that there is enough existing data on non-treated patients already out there to account for a "Control Group"? Why the need to have a separate and distinct group for control for each study? Thoughts?

 **Derek Lowe** says:
13 April, 2020 at 11:36 am


This is a short cut that’s occurred to people many times in the past, but there are so many variables that we can’t account for that it’s still a risky move, IMO.

 **mario lento** says:
14 April, 2020 at 4:20 pm

You are making a strawman argument, so you’re conclusions are baseless. You called him “a quack” and then made strawman statement “You can’t be a credible medical researcher without conducting the gold standard in research.”

He’s treating people, not conducting research. By the time there are out comes that will garner the gold standards, people are dying for lack of treatment. Thank goodness Trump brought this to light and people are learning to treat people with Zn and Hydroxychloroquine. That is based on real science by the way.

So Jeong: There is no need for ad hominem attacks. You’re posts just dilute the value that can be gained by cogent discussion and show people who you are. Not helpful.

 **Chumoby** says:
14 April, 2020 at 9:33 pm

The best control for any individual is the individual himself. Control groups made up of different individuals, while useful, are not without their own inherent biases and uncontrollable confounders. By monitoring serial viral titer levels of patients in his study, Prof Raoult incorporated in-built controls, since the temporal changes in viral titer levels over the course of treatment are in a sense a form of controlled study. The hullabaloo about hydroxychloroquine and chloroquine is purely political and, in my opinion, dangerous, as it places ideological purity over the saving of lives. If the drug were that dangerous, then there should be millions of lawsuits in Africa where the drug was used for decades as a first line treatment of malaria.

 **theasdgamer** says:
16 April, 2020 at 11:09 am

I ran the numbers on Zelenko’s report of 699 patients assuming a conservative 2 % mortality rate. Zelenko’s regimen is far superior to a placebo.


 **Émile Ng** says:
12 April, 2020 at 8:40 am

The debate seems to have 2 undertones. One, anti-Trumpism is affecting certain people’s attitude to HCQ. It seems that if Trump says A is potentially good, certain people must prove it is potentially bad. Second, no one has said HCQ is the cure for C19. It might play a role in mitigating hospitalizations. Finally, given the emergency nature, lack of cures, vaccines and risks of overwhelmed hospitals, this anti-Trumpian says “what have we got to lose”!

Reply

 **mario lento** says:
14 April, 2020 at 4:21 pm

This pro-Trumpian agrees with you.

 **Whatif** says:
12 April, 2020 at 9:35 am

The debate seems to have 2 undertones. One, anti-Trumpism is affecting certain people’s attitude to HCQ. It seems that if Trump says A is potentially good, certain people must prove it is potentially bad. Second, no one has said HCQ is the cure for C19. It might play a role in mitigating hospitalizations. Finally, given the emergency nature, lack of cures, vaccines and risks of overwhelmed hospitals, this anti-Trumpian says truly “what have we got to lose”?

Reply

 **Dr Darko** says:
15 April, 2020 at 1:58 am

To Tom Boyer : you’re all wrong, sorry. The apparently good results of Raoult are in fact simple to explain.


1. He makes systematic COVID tests because he can (huuuuge research structure with a lot of PCR facilities and people to work on it).
2. He communicates on YouTube so all of the people thinking they might be contaminated in his area are coming to his lab to get tested, and are.
3. He therefore treats a lot of young people with benign or even asymptomatic forms of the disease, in which the fatality would be utterly low without any treatment.

Therefore you CAN’T compare his results with data from other regions where only significantly ill patients are tested for the virus.

He was certainly a talented searcher in the past, but what he is doing now is merely garbage. Medical populism. Such a waste, just because he does not want to take the risk to confront his promising intuition with the toughness of reality.


Double blind randomized controlled trial is the only way !

Reply

 **RJD** says:
12 April, 2020 at 1:33 am

You can try to politicize this , but if it were you you would be begging for these drugs. You socialists will kill millions with your big government controls.

Reply

 **Henk** says:
12 April, 2020 at 4:23 am

RJD you seem the one getting politics into this. At any rate these drugs are extremely cheap, cheaper than any hospital bed. So money is not going to be an argument here.

Reply



Watcher of the road says:
12 April, 2020 at 8:40 am

The cost is in fact the problem. Big Pharma will not benefit much from selling a 5 cent drug to cure us from a deadly virus. What Big Pharma wants is selling a \$100 vaccine to a few billion people.



Trebitch says:
12 April, 2020 at 10:51 pm

This treatment issue is about to go quickly away.
Somewhat OT, but important. We had seventy years of communism to illustrate the failure of economic planning. Now our politicians think they can plan the shut down of economic life with no unintended consequences.
Breakdown in food supply chain is coming due to shut downs:

<https://market-ticker.org/akcs-www?post=238925>

Hysterical, moronic imbecility is the chief virtue today.

Reply



TooIntelligentToBeLiberal says:
12 April, 2020 at 7:56 am

Ah, yes. As soon as you linked a Slate article, I knew you were delusional and would resort to name-calling and bringing Trump into it...

Reply



HC says:
16 April, 2020 at 10:59 am

Please avoid Anti-Trump political comments here. Stick to medicine. There are many of us here who support President Trump and are offended by your political comments

Reply



Diego Fleitas says:
12 April, 2020 at 10:24 am

For the experimentalism zealots, a good observational study or a good quasi experiment is better than nothing or a bad experiment.
In fact, a census of all cases would be an observational study.
In addition, the scientific world so far has not been able to produce those experiments, and not even comprehensive and detailed statistics.
Curiously, some impose destructive measures to whole societies without solid evidences, and most of the scientific world is mute.

Reply



charlie says:
12 April, 2020 at 6:10 pm

Then, he is not a scientist.

Reply



TedB says:
12 April, 2020 at 9:38 pm

It is NOT a rationalization. It is common sense application of a proven efficacy against the Wuhan Virus with no side effects. It would be wonderful to have developed this therapy with no outbreak. But that is not the case. People are dying needlessly because lab rats like Fauci are fiddling while the ship is sinking.

Reply



james says:
13 April, 2020 at 1:40 am

Picky picky picky

Reply



YourMom SaysYouKnowBetter says:
13 April, 2020 at 2:28 pm

I took plaquenil for RAD (hydroxychloroquine) and it has horrible side effects. Just taking it short term (so even after stopping medication) is a commitment to NeuroOpt hamology and Cardiovascular exams for the rest of your life.

But I don't see this as a Benefits/Risk ration question. I've yet to see ANY non-anecdotal results w/plaquenil taking credit for providing benefit. We have all read multiple studies but I would advise others to stick to the full data sets rather than the summaries. Draw your own conclusions. It flat out doesn't work. Or the benefit remains at an almost unquantifiable minimum.

Researchers are being forced persist despite the lack of results because the consistent push from the White House has not allowed them to move on to life promising areas of study. Bias from its main promoter, who is also not a doctor or scientist should be noted. (trump coincidentally owns stock in the company which produces it).

I understand the 'why not' argument, but there are a lot of reasons why not- the biggest being that we are wasting time. People given the drug in Italy and Spain which maintain the highest death rates (4% & 11%).

NO POLITICS- This is valid scientific discussion. If corn syrup producers hire a researcher who comes out with a small study saying they can cure cancer – the first thing anyone will do is point out the flaws and room to question that study. Too small, why can't it be produced on a larger

scale? Why don't the same conclusions reproduce with control groups and larger data sets? Why do unbiased researchers provide a different conclusion.

There are NO unbiased sources right now showing or saying that it works.

The Continued Pursuit of Plaquenil, despite data pointing elsewhere is doing more harm than good and I imagine history will not look kindly upon those continuing to insist upon their 'feeling' that it's a cure rather than allowing researchers to move on to the things that may be more expensive and less profitable but that we KNOW work- such as plasma infusions from those affected.

This is capitalism, and one Leader's gut instinct, desire to appear in control (& coincidental stock portfolio) at work. EVEN IF it isn't about \$ for him personally, it remains a cause of potential bias for those influencing him aka Big Pharma who have his ear as one of his largest donors in the current election cycle.

Prescription Producers have already applied for – and received from the FDA – special approval on potential treatment from the FDA under the 'rare conditions' label- providing them with:

- a longer period no one else can produce the same medication
- longer period no generic is allowed
- ability to raise and completely control pricing

This special approval is typically reserved for medications proven effective and proven to likely be used by less a small amount of people at a time (I believe less than 250,000) Does that seem appropriate for a potential treatment for the current pandemic, which we know will be used worldwide, by and for those in developing countries and without health insurance?

We KNOW plasma transfusion works. In nearly EVERY test case it has positive and often lifesaving results. One case for example showed negative results for the virus within 24 hrs. This is what we should focus on. Provable, repeatable results. Results that offer little to no profit- even a loss as under current circumstances.


Follow the money.

Reply

 **margot fetter costa** says:
13 April, 2020 at 6:43 pm

Considerando que os efeitos colaterais, especificamente o alargamento do intervalo QT, são mais frequentes e graves em doses mais elevadas, não seria de bom alvitre que fossem empregadas menores doses da HCQ? Como, p.ex., 200 mg duas vezes ao dia ?

Reply

 **Keith Alan Croft** says:
15 April, 2020 at 9:17 am


That's because standard of care is the only ethical control in clinical trials for life-saving therapies. You can't run a human study the same way you would run an animal study with euthanasia as the endpoint .

Reply

 **Brandon Moore** says:
17 April, 2020 at 8:58 pm

Isn't that the same reason there have not been any double blind placebo studies for any vaccines?

Reply

 **Terence Daly MD** says:
20 April, 2020 at 6:30 pm

At some point anecdotes become data. We will soon find out when more studies are completed since a course of treatment seems to be days to weeks not months.
I have screened many patients over the years for chloroquine retinopathy as a retina surgeon. I've seen pictures in journals and text books of "bulls eye maculopathy", never a patient of mine. There are more sophisticated electrophysiology tests as the drugs, both hydroxy and non hydroxylated chloroquine affect the retinal pigment epithelium.
I would be interested in the political affiliation of the doctors who oppose its use. (TDS?)
Also, it seems counterintuitive that Boris Johnson, admitted to the ICU, some reports say he was more sick than reported, was given low dosage O2 (4L/min) and in 3 days was released. Maybe he wasn't that sick. As far as I know, no one has asked about any other Rx other than O2. Won't it be interesting when we get more data!

Reply

 **J Smith** says:
22 April, 2020 at 9:02 pm


There is no mention of the z pack combination, the combo of HCQ AMD zPack is what POTUS always referenced.

Reply

 **Derek Lowe** says:
22 April, 2020 at 9:25 pm


See the latest data from the VA for that. Not encouraging, to be honest.

Reply

 **Ron Carson** says:
25 April, 2020 at 12:03 pm

best evidence : mortality rates i qatar and bahrain. the lowest in the world . Both embraced the Raolut protocol with early use.

Reply

 **Jayram** says:
27 April, 2020 at 9:31 am

There are a lot of unhappy people on here. A lot of politics, a lot of fear and a lot of death. No one really has the answer right now. If your time comes will you take it would be a better more fair question. People will argue about everything, except if you were possibly going to die.....Yes or no.....would you take it? And how about this one, what if your Mom or Dad or a Grandparent was sick. Would you encourage or discourage? What if you wrong, either way. Who do you blame? I would take it, and I blame Chinese Government, not its citizens, but its leaders.

Reply

 **Alan Goldhammer** says:
11 April, 2020 at 10:07 am

Derek – looks like you forgot the link to the pre-print:<https://www.medrxiv.org/content/10.1101/2020.04.08.20054551v1.full.pdf>

Just a quick note. This was done in the space of only a couple of weeks by the OHDSI consortium:<https://www.ohdsi.org/covid-19-updates/> They deserve a big shout out for getting together in a virtual study-a-thon to design this and other observational studies.

Reply

 **Derek Lowe** says:
11 April, 2020 at 10:16 am


That’s what happens when I keep writing instead of stopping to paste in the link! Fixed, thanks.

Reply

 **Renato M.E. Sabbatini, PhD** says:
12 April, 2020 at 10:30 am

The Brazilian study you cited is not with HCQ, but with chloroquine diphosphate, which is more toxic.

Reply

 **John** says:
12 April, 2020 at 12:39 am

Tried posting this before, but apparently never made it up on the blog.

I don’t think this study can be used to back off on the use of either HCQ or azithromycin in an acute setting. One needs to look at the risk vs. benefit in prescribing any drug. One also needs to look at the baseline number of events. For example, look at Table 2, heart failure.


AZM vs. AMX.
about 700 events out of 330,000 patients. So, what is this percent wise? 0.2%.

And the increase in relative risk with AZM is 1.22. So, if you take AZM, you increase your risk from 0.2% to 0.2 x 1.22 = 0.24%. If AZM is active against COVID, where the mortality rate in symptomatic persons with symptoms severe enough to be treated may be 10%, and if the reduction in mortality with AZM is to say, 5%, then this benefit far overshadows the risk in this study.

Another issue is selection bias. In the much ballyhooed NEJM study, investigators found the same difference between AZM and amoxicillin, but not vs. ciprofloxacin. The question is, are the patients being prescribed AZM sicker than those being prescribed amoxicillin? I think the answer is yes. Interested persons might want to read: <https://emcrit.org/pulmcrit/myth-busting-azithromycin-does-not-cause-torsade-de-pointes-or-increase-mortality/>

So, an interesting study, that will undoubtedly be jumped on by persons with an agenda, who understand very little about how to interpret scientific data.

Reply

 **John** says:
15 April, 2020 at 1:31 am

I posted this on another blog, but maybe more appropriate here:

Zelenko protocol (hydroxychloroquine + AZT + zinc) used in a nursing home in Texas. Of 39 cases treated, no deaths and no side effects.
<https://www.wfaa.com/article/news/health/coronavirus/texas-elderly-hydroxychloroquine-coronavirus-treatment-texas-city/287-7383185c-940c-4cb2-82ea-c4a5ffad3ffb>

The interview with the doc treating the cases can be head here.
<https://www.wfaa.com/yallitics>

Contrast this with the results in a New Jersey nursing home (although they don’t mention whether HCQ treatment was given or not:
<https://www.northjersey.com/story/news/coronavirus/2020/04/11/nj-nursing-home-crisis-deepens-deaths-coronavirus-increase/5134089002/>


“At the Elizabeth Nursing and Rehabilitation Center 28 people have died – six of them since Tuesday – and 44 of the remaining 54 patients are sick, said Elizabeth Mayor J. Christian Bollwage. Only 19 have tested positive for the virus, and Bollwage said he did not know if the others had been tested. Twelve staff members were ill.”

Reply

 **Sm'other idiot** says:
11 April, 2020 at 11:07 am

Ophthalmologists can see clearly.

Reply

 **Joe T** says:
11 April, 2020 at 11:19 am

The fact that there are so many wishing, hoping, and praying that hcq fails as a viable tx option for covid because trump touted it is just sad. If Obama said the same thing, the media would be praising him for his compassion and optimism. Everything is political nowadays, apparently, even people's lives.

Reply



Derek Lowe says:

11 April, 2020 at 11:30 am

I can tell you for a fact that if Obama had touted an unapproved drug with little evidence for something like this, I would have been on him exactly the same way. Perhaps you'd be surprised to learn that I voted against him both times.

Reply



Steve Hubbard says:

11 April, 2020 at 11:16 pm

Derek, no "official" studies of any treatment for Covid-19 will be available for at least a month and probably longer. What do you do in the meantime with 1-2K dying in the US each day. What you do is use the drug or drugs that seem to have shown the best results. Why did 350 New Jersey doctors sign a petition to their state governor to allow the use of Hydroxy? Why is New York now giving Hydroxy to almost everyone who tests positive? Have you heard of anyone dying from a heart issue due to HCL treatment of Covid-19? Google Hydroxy success and you will see quite a few doctors who have reported good success with it. Why don't you check out Stephen Smith in New Jersey.

Reply



Jeong Yeob Kim says:

12 April, 2020 at 12:13 am

Wait, but what about the doctors who are seeing serious health issues with HCQ? Or the steady drumbeat of small studies that point to HCQ not working? Or the Lupus patients who can't get HCQ? Or the Texas doctor who added HCQ to elderly patients at a nursing home without their permission (or the permission of their families)? Also, with the movement to prescribe HCQ to sick patients, we don't know with certainty if deaths have resulted from the treatment. Until the RCTs are completed (or perhaps see a pattern from several small trials), none of us, including doctors and researchers, know if HCQ works.

Reply



Enoughalready911 says:

12 April, 2020 at 1:51 am

You mean the Dr's who've prescribed HCQ to the 3 friends of mine who've taken it for RA for 5+ yrs running? Or the lupus friend who's taken it for 7 yrs? Are these Drs putting them at undo risk? How many RA patients are at risk from death? Yet they receive HCQ? Is it THAT serious?
Is it a larger risk than covid-19 itself?
The blood is on the hands of every person who downplays this possible solution when it's proven to work. It's been used for 65 yrs by children, old, and pregnant women... these bullshit claims of unreasonable dangers are dishonest and you know it. Quite shameful that you are willing to let people die when the drug is not the killer.



MInvolved says:

12 April, 2020 at 6:50 am

I am not a doctor of any sort. But a Lupus patient directly affected by what is said not said or misrepresented.

I have heard several statements that those taking how do not contact Covid-19. The first time I heard it was Trump during a press conference. It was a blatant untruth. Every time I hear this statement I'm shocked that anyone in the medical community or any that has done any research on the matter would know that statement is flat out wrong.

Please review this study and stop repeating bad information.

<https://rheum-covid.org/>

142 (46%) were taking hydroxychloroquine at the time they were diagnosed with COVID-19.



mario lento says:

14 April, 2020 at 7:01 pm

Jeong wrote: "Until the RCTs are completed (or perhaps see a pattern from several small trials), none of us, including doctors and researchers, know if HCQ works."

And while you read the dangerously misinformed opinion pieces without looking at the science and mechanisms, it's easy to get lost in the words. I say, whenever there is a 50/50 split in opinions, then it's time to understand how to seek answers outside of reading opinions.

I encourage you to attempt to understand some of how the mechanism is supposed to work and use your own intelligence to form a basis in understanding.

There is so much wrong with opinion media these days, that it often causes direct harm. It is quite easy to be factually correct while leading people to wrong conclusions. Lawyers do it all the time. Easiest way is to write a strawman argument.

Point to a failed study;
-cases which do not supplement Zn with the ionophore. It may not work well if patients are Zn deprived.
-one which says, "This is not a double blind study..." therefore bad!
What? consider that it takes some months or longer for results, and during that time, nearly all of the people who will benefit from that study will have recovered or died. How useful is waiting for a study after you die?
-cases which ONLY include people with advanced Covid 19 symptoms
These will result in a less than accurate result of how well the drug combo works. Why?
Because it is NOT, NOT a cure, it does not directly attack the virus. What it does is drastically if not completely stop it from making more. So it is of much less use once you

have an army of the virus feasting on your cells.
–cases with sensitivities to the drug.
These are rare, and of those cases, they are with long term use. If you have rare heart problems, it should be monitored closely. But also if you have heart problems, the Covid will most likely be worse for your heart than taking the HCQ to stop the virus from further replication!

It works in the early stages or in stages where if you could stop new replication, you can survive. And in those cases, you will eventually find out it is a wonderful solution with extremely low downsides.

I could go on. But the articles against the use of hydroxychloroquine with Zn are all fatally flawed. But please do not take my word for it. Do your own thinking and figure out from doing research. Of course, you should be able to differentiate research from reading opinion pieces.



theasdgamer says:

16 April, 2020 at 2:52 pm

Clearly, the rheumatologists who prescribe Plaquenil to patients for years are morons.



Derek Lowe says:

16 April, 2020 at 3:58 pm


Clearly those patients are not deathly ill with coronavirus, either. Just saying.



theasdgamer says:

17 April, 2020 at 2:34 pm

Tradeoffs and judgment call. I guess you can just let the patient die. I don't think that that's what doctors are in medicine for.



Colintd says:

12 April, 2020 at 4:12 am

The following is flawed logic for deciding on the correct global response...

"We must do something!"
"X is something"
"We must do X!"

Reply



MaBe Interested says:

12 April, 2020 at 7:05 am

They first time I heard the claim that people with Lupus taking Hcl didn't get Covid-19 was POTUS. Is wasn't true then and it isn't true now. Please refer to <https://rheum-covid.org/>

From the study results..

Early results from the patient experience survey (over 6000 responses):

Primary rheumatic disease: 24% with rheumatoid arthritis, 15% with systemic lupus erythematosus, 6% with axial spondyloarthritis, 3% with psoriatic arthritis
309 (5%) reported COVID–19 infections.
142 (46%) were taking hydroxychloroquine at the time they were diagnosed with COVID–19.

Reply



theasdgamer says:

17 April, 2020 at 2:31 pm

The link states that 5% were diagnosed with covid, not 46%. And it doesn't mention their dosage or whether they were taking zinc or how much.



Bruce Lancaster says:

12 April, 2020 at 3:09 am

bull.


And furthermore, ... ahem!

No mention of zinc?

Bull.

You're full of it.

Reply



Lookingforananswer says:

12 April, 2020 at 4:41 am

No you can't. For it to be a "fact" that you would respond the same way if Obama had said what Trump said, you would need an example. You don't. You are making an unsupported assertion.

You are being less than candid about Trump's comments- he said it showed "promise" and "if it worked" it would be a game changer. With the caveats, Trump's statements were correct

As for your hyping the cardiac risks: Both hydroxychloroquine and azithromycin have been used for many years. Their risk profile is well established. They may be contraindicated for some patients but given this would be a short term treatment for patients with a horrid disease, that group would be small.


If you had any intellectual integrity, you would wait until actual studies were published rather than latch onto tweets

Reply

 **Ian Malone** says:
12 April, 2020 at 3:12 pm

He wouldn't be correct, if it makes a difference it makes a bit of a difference, people will still die, hardly a 'game changer'. But the truth is pick a random sample of doctors who've given this to people, some will have by chance had good outcomes and some bad, the good ones will be singing it from the rooftops, the others frantically trying to keep patients alive. In the middle ages you'd have found plenty of doctors convinced that sweet smelling herbs would prevent plague. And they'd sound just like this, why should we wait for evidence? If it works, well enough to make a difference, real evidence would be easy. It doesn't seem to be. May as well be giving people vitamin c, at least it won't kill them from heart disease.

Reply

 **Lookingforananswer** says:
12 April, 2020 at 8:04 pm

- Do we have a double blind randomized trial that ventilators work on coronavirus?
- Do we have a double blind randomized trial that shows shutting the schools will reduce the spread of the disease?
- Do we have a double blind randomized trial that shows stay in place orders reduce the spread of the coronavirus?
- Do we have a double blind randomized trial on anything concerning the coronavirus?

 **Ian Malone** says:
13 April, 2020 at 7:06 am

"Do we have a double blind randomized trial that ventilators work on coronavirus?" etc.

We have plenty of evidence that ventilators work to keep people alive when they have serious respiratory problems. We know that without them they'd die because they simply couldn't breathe. We don't know that about hydroxychloroquine.

We know plenty about disease transmission and how to reduce it.

It's clear you're just reading from the playbook of how to argue doubt. But let's be even clearer, there's no trustworthy evidence that hydroxychloroquine helps people, there's reasonable evidence to believe the suggested treatment will harm people, and giving it to hundreds of thousands of people will lead to harm. If we don't know it's going to do any good, and even if it does some tiny amount of good if that's not enough to counterbalance the harm it will do, then giving it to people unquestioningly is wrong. Doing it because it accords with your political beliefs is evil.

 **theasdgamer** says:
18 April, 2020 at 3:40 pm

Kind of funny, the docs who prescribe HCQ / zinc are just luckier than the ones that don't. And they seem to be consistently lucky. There's no cause and effect. It's just luck!


 **DERMOT B DOBSON** says:
13 April, 2020 at 3:28 pm

While understanding the desire for a quick fix to the excess deaths from Covid19, let's not forget what happens when introductions of drugs are not fully tested as happened with Thalidomide (the US only avoided that disaster by a courageous FDA "government bureaucrat" refusing six times to approve the drug). Most of the resultant cases of birth defects in the US were from the drug being distributed for testing.

Even far more recent trials have gone seriously wrong, as was the case with Theralizumab. Volunteers were given only 0.2% of the dose deemed safe in animals, yet terrible consequences resulted.

It is a hard balance to strike, certainly.

Reply

 **Anonymous** says:
11 April, 2020 at 11:32 am

I really don't think this is the case – I think to the extent that people may be hoping it fails, it is because they would like to not see the frankly appalling behavior and arrogance of Raoult rewarded.

Regardless of whether or not he happens to be correct in this instance (and it seems already highly likely that he is certainly not correct about the "this is the cure" angle he has been touting), his methods are bad for all of us over the long term. If he happens to be right it will be almost entirely *despite* his incredibly shoddy approach, which is a great way, in the general case, to waste time, effort, and money, not to mention *kill people*.

I would love for this treatment to be effective, but it would be ... distressing, I guess? To see extremely bad clinical/scientific practice – of a kind that has killed many people in the past, through false validation of actively harmful approaches – be rewarded, as it certainly would be here. Hell, as it already is.

It's been more than a century since the idea that doctors had to show actual results, rather than dictate that treatments worked, via their sheer personal eminence (ie, arrogance), became current in medicine. It would be a shame to lose it now, and that's exactly what Raoult represents – he does not need a controlled trial, he already knows the answer. Oh.

Reply

 **B** says:
11 April, 2020 at 11:38 am

Nobody is hoping to see it fail just because it was touted by Trump. People are feeling rightly justified in calling out his disastrous and dangerous performances behind the podium where he promoted an untried treatment and encouraged national hoarding against the advice of doctors and his task force. This was further accompanied by a degradation of typical processes to

appropriately test the safety and efficacy of therapies like this, which is a dangerous precedent to set. Had he shown a modicum of restraint and told people to wait for the data to come out, nobody would be looking at it the same way (but then if he could show restraint in any capacity, he wouldn't be Trump).

Reply



Lynn says:
11 April, 2020 at 1:42 pm

Sorry, but some in the media clearly hope it not only fails, but may make the situation worse so it can be used against Trump. They are that blinded by their hate for him. And others in the media are blinded by their defense of him. Derek Lowe and other scientists who have been highly critical of how the POTUS speaks about it are not in that category. It's a relief that apolitical pharmaceutical scientists are speaking out. The way Trump has talked about it has been misleading and very much seen through rose colored glasses. If he were an advertisement, he would be shut down for not providing fair balance.

Reply



loupgarous says:
11 April, 2020 at 6:25 pm

I've defended Trump in this blog on the debunked (by [snopes.com](#)) theory that Trump gave a shout-out for chloroquine and/or hydroxychloroquine expecting to profit. I've also denounced Trump's habit of touting the drugs when there was no clinical evidence for its safety and efficacy in the treatment of COVID-19.

Now, thanks to Derek and the people he's quoted, we're getting that kind of data, and it's not good news for people expecting their Sanofi stock to spike this week – or for those of us praying for a relatively non-toxic cure for the COVID-19 syndrome. The fact is, Trump should leave the practice of medicine to those who've been trained in it. He needs to reflect, for a long time, on what his speaking out about CQ and HCQ may have done.

Reply



HC says:
16 April, 2020 at 11:15 am

We need large studies of Dr Zelenko's EXACT regimen, which is what President Trump spoke about. They have NOT YET been done, except by Dr Zelenko.



Enoughalready911 says:
12 April, 2020 at 1:55 am

Deny it all you want, you DO want it to fail. The hatred for all things Trump has blinded many from all common sense. It's evil and it's wrong. Yes people WANT this to fail. Those in the medical field included. Even when it costs lives. That is a true sick individual, especially when in denial.

Reply



Sunyilo says:
13 April, 2020 at 9:31 am

Ironically, trying to prove experimental therapeutics' failure has been a most successful approach to develop therapeutics that successfully make it to the market. On the flip side "wanting" one to succeed is the most common reason a candidate fails. You seem to be a person of faith; good for you but don't blame others who think the efficacy of a treatment is not a matter of faith.

Reply



Anonymous says:
15 April, 2020 at 5:13 pm

Trump loves fast food, golf, and busty models. I guess there are no liberal-minded people who like those things either

Reply



johnnygenlock says:
12 April, 2020 at 8:28 pm

Hydroxychloroquine in a cocktail may prove effective. But there still will not be any cure available for TDS, Trump Derangement Syndrome. Nobody believes "Nobody wants . . ." The rants against Trump's style sound like a bad divorce in Judge Judy's Court. The drug has a 50-year history. Beside T is the diminutive Fauci, who made money hand over fist during the AIDS "epidemic", when some realize more died from the side-effects of AZT than the actual AIDS. Now many of you Johnnies and Janes are pushing for what? Fauci's vaccine? Nobody's talking about . . . the regular Flu Vaccine is hit or miss at a moving target. How is a vaccine for COVID 19 possibly going to be any different? We're talking RNA; talking Retrovirus; incredibly fast mutation. Seal Team 6 had to allot an extra 3,000 rounds a week just to get their otherwise crack shots to be able to predictably lead a moving target. Here we have Fauci predicting 2.2 million deaths in the US from COVID 19; now coming down to around 60,000. With that kind of accuracy, sounds like the top med guru is more into "spray and pray" than accurate models. So how are they going to get a vaccine to market that will develop immunity to COVID 20 in 2021? ??? With all this dissection going on of the Hydroxychloroquine protocol . . . seems many ready to ash can it out of the gate . . . what's to say we get a year or more down the road and the Fauci team's vaccine is not working? With all the money invested in its development, would they then be honest and admit it slipped right by them?

Reply



Amelia McRae says:
11 April, 2020 at 5:27 pm

The difference is, Obama would not have touted an unproven drug unless he had a bullet proof justification for it from his health experts and even if this was the case, it's likely a credible medical representative would communicate on it. It is beyond comprehension that a US President can advocate for untested drugs and not stand accountable when 1. They don't work, or far more seriously 2. Lead to avoidable deaths.

Everyone would love for something to work. The problem is, a man who can't differentiate between a virus and bacteria or know the correct application for antibiotics is dangerous passing any comments publicly on drugs and therapies. Particularly when he does it against the advice of his medical experts.

Reply



loupgarous says:
11 April, 2020 at 6:36 pm

At a town hall meeting, Obama prescribed aspirin for pain arising from a questioner's grandmother's severe degenerative hip disease because the sufferer was elderly. Sorry, he needed to shut up about medicine, too.

Ezekiel Emmanuel and Obama's other "bioethicists" endorsed Britain's National Health Service as the model our own health care system should follow. That didn't age well – medical care's being rationed throughout the NHS and its fiscal wheels are coming off.

Now the Democrats are endorsing that same Medicare whose General Fund Obama raided to help pay for the health care scheme bearing his name. The problem is with "Medicare for All" as it's been described so far is that it's liable to bloat into an unsustainable travesty like the NHS.

Reply



drsnowboard says:
12 April, 2020 at 2:44 am

Careful throwing words around like 'unsustainable travesty' relative to the free at the point of care NHS, us Brits get rather touchy about that. Yes, it is underfunded – as a result of pressure to become more efficient which most take to mean outsourced to private concerns owned by friends of the Tories. We have a PM who was playing from the populist Twitter playbook and we can only hope that his recent experience of an NHS hospital will have changed his direction of forward travel.

Reply



loupgarous says:
12 April, 2020 at 2:35 pm

Mea culpa. At the current level of care, NHS may be fiscally sustainable. Much of that seems to be where you look for assessments. *The Guardian* is hopeful on the matter, but once you find [sources not tied to an ideology](#), there's less optimism.

I sincerely hope that NHS manages to be sustainable at a level where there's also a reasonably good outlook for health outcomes for all members of the population. Here in the US, some states offer reasonably good care to all members of society under Medicaid, and no one's allowed under the Hill-Burton Act to be turned away from hospital emergency rooms for care required to stabilize their medical condition prior to transport to a publicly-funded facility (a point always glossed over by journalists commenting on US health care).

That doesn't mean the outlook's rosy for everyone. In areas with fewer specialty care providers *per capita*, it can take some searching to find providers for, say, orthopedic care willing to accept the dismal pay offered to providers under Medicaid and Medicare for quality health care, but it is available. We're still hashing out the way in which free at the point of care is offered, but it *is* available to those who need it and can't afford to pay for it here.

Journalists in the UK and Europe imply otherwise in ways demonstrating they've never researched healthcare availability here in person (I've had NHS care for a sinus infection while working for a British affiliate of an international consulting firm in the 1990s and it was good, if not as efficient in the same time period as I'd come to expect. On the other hand, "efficient health care" for a sinus condition back home would probably have involved a fluoroquinolone antibiotic, and I was spared that by the NHS – my provider laboriously tried antibiotics from penicillin upwards in antimicrobial potency until we discovered vibramycin worked.



Squirrilla, C says:
16 April, 2020 at 1:20 pm

The US would have to pursue a potentially embarrassing and costly procedure in the WTO (Article XXI in the "GATS") to have "Medicare for All" or indeed almost any changes to our healthcare system that adversely "affected" international trade in services' profitability. Especially financial services which are subjected to a plethora of additional, Byzantine rules. That is unless they pass this very difficult two prong test.

"For the purposes of this Agreement...
(b) 'services' includes any service in any sector except services supplied in the exercise of governmental authority;
(c) 'a service supplied in the exercise of governmental authority' means any service which is supplied neither on a commercial basis, nor in competition with one or more service suppliers."

(See the GATS and also see the Annex on Financial Services, and Understanding on Commitments in Financial Services, especially its 'standstill/rollback which is dated in the 1990s)

Anything that pushes us towards more affordability (and less profitability for foreign financial services providers) in any way is likely to run into those brick walls and trigger some kind of trade war over the loss of a potentially huge number of allegedly promised jobs to GATS jurisdiction, and likely outsourcing/offshoring.

Similar issues most certainly apply in the UK and many other countries, just differently.

This is why some powers that be must certainly feel that healthcare is too important a thing to be left to the voters or politicians. They really don't want this to come out into the light of day. Despite it already being all over the trade literature, and even covered a bit by specialized

journals like Health Affairs and The Lancet. – https://www.allysonpollock.com/wp-content/uploads/2013/04/Lancet_1999_Price_WTODomesticPolicies.pdf

(But soon forgotten in the general racket of conflicting media) .

Note especially in the Lancet article- Its authors explain something thats often misunderstood, that all partially subsidized “services of general economic interest” cannot be publicly subsidized except in the most minimally trade restrictive means possible. That means means tested and limited to the smallest possible number of people, for the shortest possible amount of time, say people gravely sick from coronavirus, not working and requiring immediate hospitalization. And in the midst of a national emergency. (Otherwise, other countries would want more, more of the time. The discipline would break down, and before you knew it all drugs would be forced to become affordable. The ultimate goal is to get governments out of the business of protecting people, except in cases where financial services products like insurance were mislabeled.)
Also, active members of the military, or retirees who no longer are working, seem to be okay getting public healthcare for now. But will it remain so for an extended period of time if the rules are broken without withdrawing the relevant sectors from GATS first?

Probably not. We would lose them all. Which is probably what they want to do, although they are unlikely to admit it, you can see that intent in the Agreement, as it is arguably its end point. A fact sheet published by the WTO that they claimed put the critics concerns to rest only served to reinforce the validity of their criticism.
Another group of critics are the developing countries who claim to have been cheated.

As it has been this way for >25 years and the rate that things are being privatized and globalized in countries like the US, especially in the last several years, is much too slowly for many developing countries, who consider themselves to have been promised those jobs in the original Uruguay Round.


They were the glue that kept the WTO together, they claim. A key document to understanding the feelings of the WTO Secretariat can be found on their site, look for document S/C/W/50 . Its a doc file
This has already been happening elsewhere. Currently its held in check here only by immigration rules (despite GATS Mode 4 being officially “temporary movement of natural persons” and explicitly not immigration for the purpose of changing one’s permanent residence, i.e immigration, not non-immigration, which many want to put totally under the jurisdiction of the WTO.)

It’s the quotas, really, not the fees, that is being challenged in the WTO. See this CRS report: Certain U.S. Laws for Foreign Workers Draw Fire from India in the WTO
<https://fas.org/sgp/crs/misc/india-wto.pdf>

The 2010 Patient Protection and Affordable Care Act was likely only allowed by the WTO in the context of temporary post 2008 “protectionist measures” and likely was intended to be scope (only available to those who could not buy commercial insurance at all) and time limited (ten years I think is the limit). Then we are supposed to return to the status quo that existed in February 1998 (due to the standstill clause in the Understanding on Commitments in Financial Services, and provisions in the agreement to meet every two years to push for more and more liberalization) . This ‘agreement’ was actually the subject of an article in Health Affairs co-authored by Dr. Emanuel. Its worth reading.

The General Agreement On Trade In Services: Implications For Health Policymakers
<http://content.healthaffairs.org/content/23/3/137.long>

Reply

 **jz78817** says:
11 April, 2020 at 7:43 pm

@Joe T


can we not turn this into yet another “my favorite politician is right and you’re stupid for agreeing with who I assume is your favorite politician” mudslinging? Pls k thx bye.

Reply

 **TooIntelligentToBeLiberal** says:
12 April, 2020 at 8:09 am

Maybe if people weren’t rabid anti-Trumpers to start things off, it wouldn’t devolve into that. I notice that you only commented to call out a Trump supporter, not the dozen or so anti-Trumpers who were mudslinging before he even posted. Then again, hypocrisy has ALWAYS been your thing...

Reply


 **jz78817** says:
13 April, 2020 at 3:42 pm

man, is there no blog that doesn’t end up infested by Russian disinformation trolls?

Reply


 **Derek Lowe** says:
13 April, 2020 at 5:46 pm

Nope, not if they sniff out the right keywords.

 **stephen** says:
12 April, 2020 at 2:20 pm


Why is a president, who does not know his ass from his elbow, offering medical advice to the public? Does he know that HCQ has a half life of 50 days in vivo?

Reply

 **psoun** says:
11 April, 2020 at 11:56 am


I tried posting this earlier but if the modality of HCQ function is through IL-6 reduction and not broad antiviral activity, then most RCTs aren't going to show much an effect. Under that hypothesis, the main effect of HCQ would be on reducing or preventing those cases where IL-6 rises which will be a minority of cases in a broad RCT unless you control/predict for IL-6 elevation and I don't know how that is easily possible.

Reply

 **B** says:
11 April, 2020 at 12:03 pm


If that ends up being the case, then it seems best to use Tocilizumab when the ARDS seems about to set in. Certainly it would be more targeted and likely to show efficacy than through a complicated HCQ mechanism that appears to show only slight efficacy at best.

Reply

 **stephen** says:
12 April, 2020 at 3:25 pm

exactly

Reply

 **psoun** says:
11 April, 2020 at 12:10 pm


The issue though is whether HCQ (1) prevents ARDS from happening altogether in the small subset and/or (2) how effective HCQ would be once a case progresses to that point. Both worth investigating but with an eye on the IL-6 link (if any), though the former harder than the latter (though maybe the former is what Raoult is seeing by accident?). HCQ does inhibit IL-6 in RA but is typically not fast acting. More data as always needed.

Reply

 **Squirrilla** says:
16 April, 2020 at 10:13 pm

Resveratrol modulates IL-6 downward and also has strong activity against LPS and sepsis. It also seems to have the ability to dramatically reduce pulmonary fibrosis and especially pneumonia. It actually seems to improve the integrity of all the body's barriers.. not just in the lungs, also gut barrier function, BBB etc. It also kills MERS in vitro (and many other viruses) They should look at it.

Reply

 **psoun** says:
11 April, 2020 at 12:15 pm

Actemra is also pretty rough too
<https://www.statnews.com/2017/06/05/actemra-rheumatoid-arthritis-fda/>

Reply

 **ToXDoX** says:
11 April, 2020 at 12:20 pm

I think an interesting case from the preprint is that the mean age is 43.6, a population that is at much lower risk for serious outcomes. If we were to extrapolate, it would be comparing Germany's outcomes to that of Italy (mean age in the mid 40s vs. 60s). Almost no diabetic patients (69/1061 = 6.5%), now only doing 3 day course treatment (under what premise?), mean time to therapy start = 5.9 days, then they are confirming negative 9 days after treatment start (14.9 days into the onset of disease).

Again I'll have to dig more into the study but this was only from an initial glance at the numbers.

And all for your politically charged commenters: I'm a registered gun toting Republican. But there's a saying in the special forces: "Smooth is fast and fast is smooth". Especially with drug selection, we shouldn't rush therapy on the market when there are known adverse events. People are rightfully skeptical when people like Dr. Raoult are purposefully manipulating data to self-promote. Especially when you take 2 known QTc prolonging agents, apply it to a n=1061 and get no cardiotoxicity. That's just BS.

Reply

 **ToXDoX** says:
11 April, 2020 at 12:24 pm

*excuse grammatical errors, working frontline posting today


5.9 days was the mean date of presentation for POOR outcome. For good outcomes, it's 6.5 days. So they're essentially saying: if you wait longer before showing up, you'll be better off taking HCQ/AZT! HAH!

Reply

 **matthew49** says:
11 April, 2020 at 12:43 pm

Are people who are taking hydroxychloroquine for lupus or RA (there must be a lot of them) getting severely ill or dying from corona virus? Is there a way to find out?

Reply

 **Alia** says:
11 April, 2020 at 1:28 pm

Don't forget (as Derek mentioned in one of his earlier posts, I think – or maybe it was somewhere else) that those people might also be very actively trying to avoid getting COVID because they know their risk is elevated.

Reply



Michael Abesamis says:
11 April, 2020 at 3:58 pm

There is data from COVID19 Global Rheumatology Alliance showing RA pts on HCQ are still getting sick from SARS-Cov2. You can look them up and peruse what they have so far.

Reply



Forte Shadesof says:
12 April, 2020 at 3:17 am

Have you a link


Reply



Isaincu Tiberiu says:
11 April, 2020 at 3:59 pm

https://youtu.be/htyCEeq_YVI

Reply




james says:
11 April, 2020 at 1:10 pm

this class of medicine were used prophylactically by the GIs in hundreds of thousands during Vietnam war. how bad was the long-term side-effect?

instead look for publications why not verify with patients recovered?
some claims already surfaced. One does not make science. Gilead's Rem also saved one. against this covid19 what we need are more of these, but not denying their access
<https://nypost.com/2020/04/07/michigan-democrat-says-hydroxychloroquine-saved-her-life/>


Reply



David says:
11 April, 2020 at 5:23 pm

I don't the GIs were in a high risk age group. The comparison with sick people in the 40-80 year old age group is meaningless

Reply




milkshake says:
11 April, 2020 at 7:21 pm

the US military does not have a good record of using preventive medicine. Before chloroquine there was atabrine, and now there is mefloquine – not nice things to take long term, even at lower-than the typical treatment dose. (Mefloquine has been recently used in high dose as a drug torture pill at GITMO). And the Gulf war syndrome was most likely caused by preventive long term use of pyridostigmine in untested combination with high dose pyrethroid.

(Regarding safe use by GI, also let's remember the amphetamine pills given the crews of bombers, to stay alert on long duration missions – many of them became dependent on it)

Reply




Tom A says:
13 April, 2020 at 12:43 am

I would not look to Vietnam soldiers' health as a proxy for chloroquin or HCQ safety. There's a lot of variables to tease out but I'll quote two selected statements from the current Veterans Administration summary:

1) ".....VA now recognizes eight conditions which are presumed to be related to service in Vietnam for the purposes of establishing service-connection: soft tissue sarcoma, non-Hodgkins lymphoma, Hodgkin's disease, chloracne, porphyria cutanea tarda, respiratory cancers, multiple myeloma, prostate cancer, acute peripheral neuropathy, and spina bifida in offspring."
2) " Malaria was the most important [tropical disease]. Over 40,000 cases of Malaria were reported in Army troops alone between 1965 and 70 with 78 deaths. However, this was less than had been seen in earlier wars because of the effectiveness of weekly chloroquin-premaquin prophylaxis against vivax malaria." Emphasis that it says chloroquin.
So it isn't a good idea to broadly assume soldiers in Vietnam fared well with anti-malaria treatments in service (40,000 cases), and we know many did not fare well in the long run. How much is due specifically to Agent Orange and how much to other factors?
<https://www.va.gov/oaa/pocketcard/vietnam.asp>


Reply



loupgarous says:
13 April, 2020 at 3:46 pm

Chloracne and the tumors mentioned in the VA's list that you mention are more typical of exposure to dioxin, a frequent contaminant of herbicides like Agent Orange sprayed widely from large aircraft during the US Army's deforestation campaign in Vietnam. Hearing loud and persistent hoofbeats, I'd look for horses first. But as a neuroendocrine cancer patient, I can say zebras (odd cancers which cause odd symptoms) do exist.

Reply




Tom Boyer says:
11 April, 2020 at 1:15 pm

>> That isn't good. I am very glad to hear that the Raoult group has observed
>> no cardiac events in their studies so far, but I wonder how they have managed
>> to be so fortunate

2400 covid patients treated so far, 10 deaths. Didier Raoult must be some very lucky dude. 😊 Or maybe he's just a big fraud and making all this up.

Reply


**cirby** says:
11 April, 2020 at 4:05 pm

...because nobody would ever, ever figure that out, right?

What’s really interesting is the number of people who are citing the terrible, horrible, unavoidable cardiac side effects of HCQ + AZM – when the actual problem is unusual to rare, only really shows up with people who have noticeable heart problems to begin with, and are usually on a laundry list of other medications before they started on HCQ. Even then, most of the problems with HCQ only show up after extended use.

In the week or so of the standard COVID treatment, the real precaution is for the doctors to check for irregular heartbeat, and then stop giving them the drug if they have problems. That’s a helluva lot better than putting them on a respirator...

Reply

**Marko** says:
12 April, 2020 at 12:02 am

>> That isn’t good. I am very glad to hear that the Raoult group has observed
>> no cardiac events in their studies so far, but I wonder how they have managed
>> to be so fortunate

If Lowe and others here did their research, they’d know why they’ve been so “fortunate”. They monitor by EKG and exclude patients who would be risky (long Qt) from the trial, and then check the rest again on day 2 of treatment.

Reply

**psoun** says:
11 April, 2020 at 1:23 pm


Raoult is sketchy as, but his overall outcome data is about what I would expect if the IL-6 link holds. Taking the Wuhan data as a control (80% mild/good outcomes, 20% severe or critical vs Raoult’s 91% good, 9% poor of different categories) and noting in the preprint that Derek posted on IL-6 levels that 13/40 severe cases presented with elevated IL-6 levels (IRC), applying that percentage to the 20% severe cases would suggest HCQ could avert 6-7 severe ones relative to control. As the Raoult study oversamples younger demographics, you’d be roughly in the confidence interval given the overall data presented.

Reply

**Truth9834** says:
11 April, 2020 at 1:32 pm


The study mentioned above (the one from Brazil) is not that helpful. It was well known that once you are severely ill that this drug combination will probably have little if any benefit. What I want to see is a study where hydroxychloroquine, azithromycin and zinc are taken early compared to a control group where no drugs are taken. Most people are aware that for severely ill patients with ARDS taking hydroxychloroquine probably makes little or no difference (Dr. Vladimir Zelenko mentions this in his interview). The only other question I have is why they didn’t add Zinc to hydroxychloroquine, ceftriaxone and azithromycin combination. Not sure if it would have made a difference but I would have added this to their treatment.

Reply

**JP Leonard** says:
11 April, 2020 at 5:57 pm


Truth9834, that’s one way, but what i wish to see is a study where they give HCQ without zinc to one group, and HCQ with Zinc to the other. They could even do this in Brazil if HCQ is mandated there. Zelenko is using 220 mg zinc sulfate daily for 5 days

Reply

**lou** says:
12 April, 2020 at 7:16 am


FYI Zelenko is not the only one to use zinc. Anthony Cardillo and others do the same.

Reply

**JP Leonard** says:
15 April, 2020 at 2:50 am

I would like to know of any other doctors besides Zelenko and Cardillo who are giving zinc. For my research paper on it <http://www.progressivepress.com/blog-entry/think-zinc> so far i only know of those two, plus Dr Beeth in Brussels and Dr Nikogosian in Nevada has written an article about it

Reply

**OC** says:
11 April, 2020 at 2:09 pm

Sorry but your write up of the Brazilian preprint study leaves A LOT to be desired. Please fix it immediately otherwise you will be just as guilty of the proponents of HCQ therapy of intellectual dishonesty.

1) All of these patients were being treated for COVID-19 induced ARDS. That is a big deal that you need to highlight at the outset when writing about what learnings can be derived from this study. These are seriously ill patients towards the end stage of the disease where the damage from the virus has already occurred.

Best I can tell none of the proponents of HCQ therapy are claiming it is effective at this stage of disease progression rather that it helps prevent patients get to that point (not saying I am completely convinced it does by the way).

2) This is NOT an HCQ randomised trial. The authors clearly state that the drug given and dosages applied were of Chloroquine diphosphate. While similar in mode of action the toxicity profile of Chloroquine is widely acknowledged to be worse than that of HCQ.

3) The doses given here in the high dose group were VERY high. The high dose regime is 1200mg a day for 10 days. That is substantially higher than Chinese clinicians who used chloroquine gave their patients. E.g Zhejiang University recommended 7 days MAXIMUM treatment at 500mg 2x daily only for those patients where weight > 50kg. Weight 50kg patients vs. 12g in this study.

In contrast these authors don't state whether they varied this dosage for weight anywhere in the preprint I can see.

Given I understand Chloroquine toxicity begins at c20mg/kg/day there is a chance they merely overdosed some frail elderly patients who weighed less than 60kg (who you would imagine would be overrepresented in ARDS patients.)

4) 90% of the patients in the study had been or were still taking Oseltamavir. There is research that suggests Oseltamavir has a risk of QT prolongation. The fact patients were taking this drug shouldn't be ignored and should be mentioned in your write up.

5) A quick read of the study throws up an immediate disparity in the data in table 3 (says 4/41 died in high dosage group by day 6 vs 7/40 in low dosage group) and in the flow diagram below it and the report summary where they instead say 7/41 died in the high dosage group and 4/40 in the low dosage group. I.e. at least one of these is incorrect.


Moreover the cohorts are clearly NOT comparable. The high dosage group is worse on almost every metric (average age, co-morbidities associated with elevated covid-19 deaths, breathing rate, oxygen saturation, systolic blood pressure, liver enzyme levels, etc etc. Most clearly there were only 10 of 40 patients (25%) with a qSOFA score above 2 in the low dose group vs. 41.5% in the high dose group.

Reply

 **Charles** says:
11 April, 2020 at 2:47 pm

OC – yours is the best comment in this thread. Clearly no bias. Thx.

Reply

 **OC** says:
11 April, 2020 at 5:00 pm

Sorry for some reason my comment got truncated. Meant to link to the Zhejiang University Handbook on COVID-19 prevention and treatment contained here :

<https://www.zju.edu.cn/english/2020/0323/c19573a1987520/page.htm>

In it they recommend prompt treatment with antivirals but are not dogmatic about which to use. The chloroquine phosphate dose they give is 500mg bid for patients > 50kg for 7 days max. I.e. 7g total vs 12g given in the Brazilian study.

For < 50kg patients they give 2 days loading dose of 500mg bid and 1x 500mg for 5 days max after that. I.e. 4.5g total for those weighing less than 50kg.


Reply

 **Smut Clyde** says:
11 April, 2020 at 3:15 pm

this morning, there is a picture of what appears to be the summary page of a manuscript under review at the NEJM.

That tweet seems to have been deleted.

Reply


 **André Nadler** says:
11 April, 2020 at 3:54 pm

Here's a bit more context on Dr. Raoult and his co-workers: On Feb. 13, they put together a lecture series that was conveniently called “Contre la méthode”.

<https://www.mediterranee-infection.com/contre-la-methode/>

The titles of the talks are “interesting”. The content is eye-opening (in French). Short summary: They basically reject the scientific method as such.


Reply

 **Toni** says:
13 April, 2020 at 5:43 am

Didier Raoult's work has nothing whatsoever to do with a paradigm shift in science. That is why his references to Popper, Kuhn and Feyertag are not only embarrassing but also marked by a certain hubris.

Even his “impression” that some institutions have turned to the pharmaceutical industry in order not to have to “think for themselves” is arrogant and reveals ignorance about drug development.

Reply

 **Sunyilo** says:
13 April, 2020 at 10:39 am

In particular if he refers to Paul Feyerabend as “Feyertag”

Reply

 **Derek Lowe** says:
13 April, 2020 at 11:35 am

Noticed that. But in general, I would not feel particularly comfortable with disciples of Feyerabend designing my clinical trials, I have to say.

Reply

 **Toni** says:
13 April, 2020 at 12:08 pm

Ups, it wasn't Raoult's, it was my fault.

Reply

 **loupgarous** says:
13 April, 2020 at 3:32 pm


Thank you, Google Translate.

Reply

 **loupgarous** says:
13 April, 2020 at 3:29 pm

The work of Karl Popper is where guys who can't make a case for obscure and provably wrong concepts (like CQ for ARDS cases, weird hydrogen bonds induced in antifreeze by coronal arcs and telescopes that let you see antimatter galaxies) go for solace, because Poppper can be and often is misquoted with impunity.

Reply

 **pedro guedes** says:
11 April, 2020 at 3:57 pm


would like to see your comments on this paper

https://chemrxiv.org/articles/COVID-19_Disease_ORF8_and_Surface_Glycoprotein_Inhibit_Heme_Metabolism_by_Binding_to_Porphyrin/11938173/6

As a side note:
I'm Brazilian (and a financial analyst so I know nothing about medicine), the debate around cloriquine is very high here, but there is no mandatory use of cloriquine, authors must have decided not to use a control group to avoid public exposure/criticism.


Thanks for your work, it has been very helpfull for a layman like me.

Reply

 **emba** says:
11 April, 2020 at 7:35 pm


It seems like dubious speculation with no experimental evidence. It's a rather detailed mechanism being proposed that seems to be based on docking studies; I don't think we've ever really proposed a true mechanism to that level of detail based on that kind of evidence. Docking studies just don't really work this way and aren't that informative at our current level of ignorance; there are just too many ways for them to be wrong when you don't really know what is going on.

Reply

 **Curtis Philips** says:
14 April, 2020 at 4:21 pm

As another non-science person, I'm also interested in this hemoglobin-HCQ-Covid theory. I came across this article and wonder if any of the science types here can analyze its concepts:
<http://web.archive.org/web/20200405061401/https://medium.com/@agaiziunas/covid-19-had-us-all-fooled-but-now-we-might-have-finally-found-its-secret-91182386efcb>

Reply

 **mario lento** says:
14 April, 2020 at 6:39 pm

I think, at least the mechanism I understand, that the Zn in the cells using Zn + ionophores to carry them through the membrane has been clearly shown to prevent (or severely mitigate) RNA replication. With the other theories or explanations surrounding the blood, I don't see the link or mechanism of how it's supposed to work. The Medcram updates 34 and 35 videos illustrate the mechanism the best, they also show in vitro results which are compelling.

Reply

 **emba** says:
15 April, 2020 at 2:24 am

Another dubious link.


Just who is 'libertymavenstock'? What qualifications to they have to ELI5?
What is with ridiculous lines like:

'Well, a few had some things eerily correct (cough Trump cough), especially with Hydroxychloroquine with Azithromicin[sic], but we'll get to that in a minute.'

There is a big quote in that article and I can't see where it is from.

How could anyone take such an article seriously?


Reply

 **Chris Scales** says:
11 April, 2020 at 3:59 pm

In the Brazil study it appears they used CQ and not HCQ.

Two notes on that.
1. HCQ has a much better safety profile than CQ.
2. At least in vitro HCQ has proven far superior to CQ for potential anti-viral activity than CQ.

Reply

 **Ken** says:
11 April, 2020 at 4:15 pm


Dr Raoult released the results of his latest test so anyone can look at his daty from the 1061 patients he treated. The most basic result is he saw 5 deaths out of the 1061 patients. Perhaps we should do some simple math since many seem to be mathematically challenged. 5 deaths out of 1061 patients is 0.47%
As of today France has recorded 129,644 confirmed cases and 13,832 deaths.
This is a death rate of 10.67% per confirmed case.
Currently the same random population in France shows a death rate that is 22 times as large in the population who was not treated compared to the 1061 in this test that were treated. How any thinking mind can call this difference insignificant is an insult to basic logic.
For those asking for a “control group” as some magical requirement for statistical significance in their rigid illogical and unthinking brain, I recommend they use 1061 of the 129,654 who have not been treated which resulted in the 13,832 dead French who are available in the morgues of France. They represent a truly random group and the only significant difference in their outcome compared to this treated group is they were blocked from a treatment the Chinese and Koreans have been dispensing FOR MONTHS and have published generally positive if not “PERFECT” results.
I personally could not care less if Dr Raoult is arrogant, or labeled a quack by other self important quacks during any previous studies. I only care about results of any useful treatment to reduce the suffering from this deadly virus. This treatment has never been called a cure for this disease, it is a treatment when used early can limit the number of people who eventually DIE. This is not a study on the latest treatment for hair loss, or skin dryness, this is an attempt to have less DEATH. Any fear mongering about a drug which has been safely prescribed for 70 years is the mindless blathering of a fool. I don't see any indication this drug came close to KILLING 10.67% of the 1061 patients who took if for the short term of this test. We would expect 10.67% of these patients would be DEAD using the average death rate from the rest of France. What is so difficult to understand between 0.47% and 10.67% DEAD.
At this point anyone who is blocking this treatment should be removed due to there being only 2 possible reasons for their obstruction. Either they are grossly incompetent, or they are criminally blocking a viable safe treatment for financial or professional benefit.

Reply

 **Bloggs** says:
11 April, 2020 at 4:39 pm

I'm not a scientist, just an interesting observer.
It's also quite possible that Raolt has chosen the cohort coming in or excluded patients in the final tally which might remove the heroic sheen from his experiment. It is difficult to be both a promoter and and evaluate her of a medical treatment. One can be one or the other, attempting to do both at once tends to sacrifice one of the functions.
“It works because I say so” Isn't all that convincing. It may in fact be a veil a treatment, but the shenanigans have thrown fog and uncertainty over it.

Reply

 **Brian** says:
11 April, 2020 at 5:05 pm

The good news Ken, is that we'll soon have the data from several well done, scientifically useful clinical trials which will clear things up for everybody, including yourself. Hopefully at least one of the therapies being tested will provide a useful therapeutic. If something shows any benefit I'd imagine it will be a mild or moderate benefit, I'd be really surprised if anything proves to be hugely successful.

Reply

 **theasdgamer** says:
11 April, 2020 at 11:49 pm

Is anyone doing trials with and without zinc as part of the cocktail?

Reply

 **JP Leonard** says:
16 April, 2020 at 5:15 pm


Exactly what I ask for in my research piece “Think Zinc: From Game-Changer to Game-Winner against Coronavirus”
<https://medium.com/@leonardjpmail/think-zinc-9c114fde64bf>
“doctors in the field say patients don't want a placebo, they want the real thing. I'd like to see a Trump-Cardillo trial — one group gets HCQ + Azithromycin (also known as Z-pack), the other gets HCQ + high dose zinc only.

Reply

 **Fabio Vincent** says:
11 April, 2020 at 5:33 pm

A recent study in Germany shows that the actual death rate is around 0.35% among infected population. It is far below the death rate among patients looking for help. If we suppose the French study covered 1061 persons who are infected but in their majority would never require medical assistance-corresponding to what the German study revealed- the death rate of the French study is even worse (0.5%). Is there any flaw in such comparison?


Reply

 **OC** says:
11 April, 2020 at 6:58 pm

Yes there is such a flaw. Namely the one you SPECIFICALLY highlighted. Namely that the death rate is higher amongst patients “looking for help” than it is amongst ALL the infected (which would include completely asymptomatic patients who don't know they are infected and very mildly ill people).

The patient s being treated at Raoult’s clinic aren’t being cold-called and picked up off the street at random. They are specifically searching out treatment at his facility after suffering the onset of symptoms.

Reply



Amy says:
11 April, 2020 at 5:42 pm

“As of today France has recorded 129,644 confirmed cases and 13,832 deaths. This is a death rate of 10.67%...”

If you are a medical expert, this is deeply troubling that you think a comparison of confirmed cases and deaths reported are a valid control group for hydroxychloroquine treatment.

Reply




loupgarous says:
11 April, 2020 at 6:56 pm

Ken, there are two kinds of studies of hydroxychloroquine and chloroquine – those with matched control arms and which have been conducted with care to reduce conscious and unconscious bias, and which paint a different picture from what you’ve described, and those studies which don’t take those steps to minimize sources of observational and experimental error and whose design invites assignment of those patients with good outcomes to the CQ/HCQ study arms, and elimination of patients who died during the study from that study arm.

You have to have a real will to believe in drugs whose own package inserts warn of lethal cardiac side effects as drugs “which has been safely prescribed for 70 years”. That’s not “safety” as most of us look for in the medications we take routinely.

Reply



Cogito Ergo Est says:
11 April, 2020 at 7:55 pm

@loupgarous Where are those other studies ? Please share!

You say:
>You have to have a real will to believe in drugs whose own package inserts warn of lethal
>cardiac side effects as drugs “which has been safely prescribed for 70 years”. That’s not
>“safety” as most of us look for in the medications we take routinely.
I’m reading the Plaquenil notice right now and can’t see any warning of *lethal* cardiac side effect.
Not sure where you are from but until January 2020, this drug could be purchased without any prescription in France!!!!

Strangely enough at least in France and in the USA, both HCQ and Remdesivir have been authorized for compassionate use (well in France it is authorized for severe cases when it’s useless and will do more harm than good – no more viruses at this stage). Have you ever looked at the side effects of this *very expensive* drug (for which we have no perspective on those side effects)?? I’m not sure I’ve heard anybody complaining about the use of Remdesivir.

I don’t know if HCQ+ZMC is efficient however I can clearly see there are many people that are doing whatever they can to spread half truth, half lies, partial facts, etc ...

Reply



loupgarous says:
12 April, 2020 at 3:04 pm

“I don’t know if HCQ+ZMC is efficient however I can clearly see there are many people that are doing whatever they can to spread half truth, half lies, partial facts, etc ...”

Since you’re already massively well-defended against anything that conflicts with your personal biases, all I can do is wish you a nice life, one free of all the adverse effects of the treatments you’re wishing on COVID sufferers with (so far) little indication they work in trials designed to objectively show any benefit to the patient that the standard of care doesn’t.

So far, we’re seeing prettier corpses than those who expire from ARDS in COVID with the chloroquine drugs, and that’s all.

Reply



theasdgamer says:
11 April, 2020 at 11:43 pm

Heard from Dr. Oz that a leading pulmonologist (don’t remember the name) told him that Plaquenil had no major adverse effects taken daily for five years...that 1% of the patients experienced cardiac arrhythmias after 10 years taking it daily. Obviously, this would not apply to covid19 patients.

Reply



Rob Wotring says:
12 April, 2020 at 4:35 am

I recorded the interview with Dr. Oz. He said that he spoke with a rheumatologist (not a pulmonologist) because he wanted to make sure that the use of HCQ by physicians for treating COVID-19 would not make it difficult for the 300K Lupus patients, that he and other rheumatologists treat with HCQ, to obtain the drug. According to the interview, it was during this conversation that the rheumatologist mentioned that the news media was “completely off base when talking about side effects” of HCQ. Essentially, the rheumatologist said that there are no special guidelines for treatment concerning cardiovascular side-effect, because it is generally considered safe among those in his profession.

Reply

loupgarous says:



14 April, 2020 at 7:26 pm

Dr. Mehmet Oz told the viewers of his television show that “medical astrology” is a valid medical concept. His credibility ended right there. His appointment to the President’s Council on Sports, Fitness & Nutrition along with Bill Belichick is beyond incomprehensible.

Reply



theasdgamer says:
15 April, 2020 at 11:07 pm

I posted up above from the rheumatology.org site the recommended dosage of Plaquenil and what the site says about its side effects.

Reply



Baris d says:
11 April, 2020 at 6:14 pm

Turkey use HCQ for all of the patients routinely. Even to the suspected patients before test results in order to give as soon as possible. Death rates is not exceptionally good averaging around % 2 which is similar to expected ratios. Turkey must be also compared with countries who tests people widely like Germany, South Korea or US. Turkey has also a younger population. People older than 60 is %8 compared to western countries with %24.

Reply



Cogito Ergo Est says:
11 April, 2020 at 7:11 pm

@Baris d
2% for Turkey is not at all the expected “apparent” ratio. I mean that If you take the number of death per number of cases for most countries it is way higher. Obviously, those high numbers do certainly not represent the reality. However, that still makes Turkey not on par with other countries around. However, without additional information it is difficult to say if it’s the result of using HCQ+ZMC that get them such good “apparent” results. What you are saying is by the way pure “Disinformation”!.

Reply



OC says:
11 April, 2020 at 7:25 pm

Turkey did NOT start using HCQ right from the beginning of the epidemic. They are now using it in a widespread manner however.

While the figures from the article below (assuming they are accurate) may be confounded by increasing testing leading to more mild cases being picked up they do offer some ANECTDOTAL evidence that the application of an antiviral early in the disease progression is reducing the incidence of severe pneumonia. I.e. Exactly what the proponents of HCQ are suggesting.

<https://www.middleeasteye.net/news/coronavirus-turkey-hydroxychloroquine-malaria-treatment-progress>

Reply



RDR says:
11 April, 2020 at 6:45 pm

As a Brazilian I can assure that there is no mandatory use of HCQ or CQ, so I don’t understand that statement in the preprint. The debate here is intense with our president going by Trump’s book and the scientific community being mostly against it, as it should be.

Reply



Cogito Ergo Est says:
11 April, 2020 at 6:56 pm

@Fabio Vincent. Let’s not mix things up. If you calculate the number of death over the total number of cases, it’s 2% in Germany (in a country that does extensive testing). Now, obviously, all those numbers do not mean much because of the difference of testing in each country. France does not test much and the death rate is certainly much less than that. That being said, Germany is really not a good example because they have twice as much reanimation beds than most other countries in Europe and USA as well. They are also testing extensively which helps not spreading the virus.

Reply



Michael says:
12 April, 2020 at 2:26 pm

Germany death rate stats is a bit misleading. They were testing asymptomatics too and just recently changed that due to the possibility of running out of tests... I think the change was just done within the last week or two, which is why the German death rate was so low in the beginning and you are gradually seeing it spike up all the way to over 2%.

Reply




Diego Fleitas says:
11 April, 2020 at 8:27 pm

Thank you for your review
How do you asses the 13,5% fatality rate in the Brazilian case, given that they were patients ICU?

Reply

David Lin says:
11 April, 2020 at 10:11 pm


 Thank you for your work.

I would like to pount out that the Brazilian study does not look at HYDROXYCHLOROQUINE, but at CHLOROQUINE. The two medications are significantly different in terms of toxicity. 4 grams of Chloroquine PO X 1 is noted to ve rapidly fatal inside of 2-3 hours. Hydroxychloroquine does not have similar toxicity.

The Brazilian study used 1200 mg CHLOROQUINE daily x 10 days...that's a huge dose. Remember Chloroquine has a T1/2 of 55 days. It's not surprising they had toxicity. The Chinese recommended regimen is also CHLOROQUINE 500 (300 mg base) mg po q12h, which I think is also too high.


Toxicity is almost a foregone conclusion in these regimens, I would say. No other regimen previously would have countenanced such large dose regimens.

Reply

 **RW** says:
11 April, 2020 at 10:42 pm

James Todaro was an ophthalmologist... He partnered with the lawyer Gregory Rigano to push the first French study. Was he on it?

Reply

 **James** says:
11 April, 2020 at 11:26 pm


One LA practitioner noted he only saw improvements with Hydroxychloroquine if it was administered with zinc. He has only prescribed it to very ill patients and they were symptom free in 8-12 hours. Video reference – https://www.youtube.com/watch?v=eVs_EWVCVPc

Reply

 **theasdgamer** says:
11 April, 2020 at 11:31 pm

I wonder why no one is trying the HCQ/Zinc cocktail.

Reply


 **Darren B** says:
11 April, 2020 at 11:37 pm

Thank you Derek for keeping up on this.

However one thing Relative Risk increase is not very useful
“a 15-20% increased risk of angina/chest pain and heart failure, and a two-fold risk of cardiovascular mortality in the first month of treatment.”

if the incidence goes from 1 in 1000 to 1.15 in 1000
that is not very meaningful
Do you know what the hard numbers are?

Reply

 **PigDoc** says:
12 April, 2020 at 12:03 am

Little story from a 100- hog, hog lot. They have a viral disease. 95 of them got very sick and then recovered. 4 of them died. The last one is very sick and might die. A stranger drives up and yells out he has found a cure. He gives you a bottle and you inject 100 cc's into the hog. After awhile the hog gets up, eats and drinks, and is on the way to a full recovery. With 99.99% certainty, what do you know to most likely be true? Ready? The hog was going to get well anyway. Miracle cures from heaven are extraordinarily rare.

Reply

 **Fumbler** says:
12 April, 2020 at 1:09 am

And yet there's this.....
<https://www.targetedonc.com/news/updates-surrounding-leronlimab-use-in-patients-with-covid19-appear-promising>

Reply

 **PigDoc** says:
12 April, 2020 at 7:29 am

When I was a little kid on the farm there were viruses that had no cure. We watched them die and waited for herd immunity. On farms, there are viruses that are far more lethal than the one human beings get. No cure in the 1950's; no cure today. The number of snake oil salesmen who have come along during that time: thousands. Literally thousands.

There is no evidence to this second there is a treatment that works on COVID-19.

These anecdotes are all the guy who drove up and yelled he has a cure, and all the people who survive are the 96 hogs who survived a virus for which there is no known cure other than their successful immune response. With a viral illness with an astoundingly large pathogenesis array, it will take multiple substantially well done clinical trials to tease out any small benefit or harm. Of course, if all the people taking the drug in a clinical trial stand up after three days and walk out perfectly well, they will immediately write a report and everybody will get the drug. On the other hand, if a large number of people taking the drug in the clinical trial die, or suffer other horrendous damage, they will end the trial, issue a report, and nobody will get the drug again. The Doc in France is being unbelievably pigheaded. Stupid. Unethical. They have already cancelled one clinical trial in France because a large number of participants were placed in danger. Ethics won.

A large number of the dead in China dies of cardiac issues. You have to wonder if the use of hydroxychloroquine is significant part that statistic.

Reply



Frontliner says:
12 April, 2020 at 1:32 am

You may want to look at the ICU admission rate stats. 8.2% for C19 patients admitted in US hospitals need IC. 30% in Wuhan hospital study, and just 0.9% in IHU Marseille. Either IHU has infinite capacity and take any C19 person no matter how mild, or they have marked success in their treatment.


You are consistently scrutinizing hospital data like a research study, it is not, it's just data published from the front line. What's the evidence for Gilead's Remdesivir? Anecdotal. Is there control group and randomization in the tiny "study" that you cited on 6th of April as an example that HCQ does not work? No, and btw it's author Jean Michel Molina was on Gilead honoraria in 2019, consider conflict of interest.

Unill frontliners have something more definite they do what they are good at: apply the best available weapon to save lives according their judgement, heuristics and front line data. And based on Raoult's hospital results I would definitely choose it.

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30183-5/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30183-5/fulltext)
Wuhan 30% ICU admission rate as early Jan

<https://www.statista.com/statistics/1105420/covid-icu-admission-rates-us-by-age-group/>
8.2% ICU admission rate


Reply



SmarterThanYouThink says:
12 April, 2020 at 2:12 am

HCQ causes retina damage, so they would have had ophthalmologists involved to watch for that. It's evidence of a quality study, not the opposite, as you surmise.


Reply



JP Leonard says:
12 April, 2020 at 3:14 am

<https://www.webmd.com/lung/news/20200409/chloroquine-zinc-tested-to-block-covid-infection>
So they ARE testing zinc+HCQ — but only as a prophylactic? So i guess there is no pandemic panic after all and we can all go back to work now. While we wait for test results next year.
No hurry. Billionaire Bill from Plandemic Planet wouldn't want us to cure anybody, heaven forbid!
Especially now before his vaccine is ready. 😞
That would be WAY out of line.

Reply



Cc says:
12 April, 2020 at 4:54 am

A 41 year old doctor in India took HCQ plus azm as a prophylactic and died from a heart attack two days later. Take what you will from this incident


Reply



Sun Kye Kim says:
12 April, 2020 at 5:13 am

A 32 year old man died last year from having his wisdom teeth removed.
Should we stop all surgeries period, or just wisdom teeth surgery?


Reply



Jim Thompson MD says:
13 April, 2020 at 7:49 am

LOL. The Indian doctor who died was "writihng in pain." The proposed mechanism for cardiotoxicity from HCQ is arrhythmia. This guy died from myocardial infarction (or aortic dissection, or whatever) coincident to taking HCQ; not because of it.
But for the anti HCQ-ers, post hoc ergo propter hoc...

Reply




Anonymous says:
12 April, 2020 at 5:18 am

Can someone help on the below :

1. There was widespread news by mid march that HCQ studies are underway at Albert einstien hospital in brazil and trial results (preliminary) will be out in 2 weeks.. not heard of results so far
2. ICMR has recommended prophylaxis use of HCQ for all frontline doctors in India with initial loading dose of 400 mg. Apart from 1 doc oxted above, there hasn't been widespread news of frontline medical staff getting infected in India. Coincidence?

Reply



Occam O'quine says:
12 April, 2020 at 6:28 am

Interesting case from India, but as so often in this matter the garbled messaging does not help finding out the truth. <https://www.newindianexpress.com/nation/2020/mar/31/death-of-assam-doctor-who-took-hydroxychloroquine-to-prevent-covid-19-causes-ripples-2123862.html>

Headline is that some doctors in India don't want to take HCQ as a prophylactic because Dr Utpal Brahman died from a cardiac arrest from taking it... but dig into the information and it turns out he prescribed himself the HCQ+AZT combo which was NOT recommended by the ICMR.

I am extremely frustrated both by the involvement of politicians in what should be an objective medical science question and the fact that no studies seem to be being carried out on the biggest question of all, ie: Does Chloroquine or Hydroxychloroquine work as a prophylactic mono

therapy in anti-malarial or moderately low doses as suggested by several in-vitro studies since 2003? The almost seems to be a perverse avoidance of answering this key question. The answer may well be 'No' but if it turned out to be 'Yes' it would be revolutionary.


Reply



Gghjjhdddfghhhhhh says:
12 April, 2020 at 6:17 am

According to the great eric topol, we just need to trash trump, doesn't matter the evidence. Like tsri never pushed a bad drug because it made money. They do it all the time.


Reply



Virusmastercoolbro says:
12 April, 2020 at 6:23 am

Hey derick, this is a massive spewing of misinformation. Have you done Jack on virus research???? Then shut the well up!


Reply



Who says:
12 April, 2020 at 7:20 am

“versus thost patients” => “versus those patients”?

Reply



Bob says:
12 April, 2020 at 8:01 am

French dr. Is right in scientific understanding how this drug works and who and when to get. If somebody doubt he can do trials to proof him wrong?Science doesn't work by trials but by scientific explanations and I have not found any one to counter punch his arguments.Crying for trials, these type or those type doesn't do a trial.You want to proof him by trial DO and stop crying foul...

Reply




Truth9834 says:
12 April, 2020 at 8:12 am

Compilation of Evidence on Hydroxychloroquine for COVID-19

<http://docs.google.com/document/d/1O6ClS-Oz2ZAgJuyDbnlCEGjMvQPEyM-aaXARUomR9Ww/mobilebasic#h.t6w1d4qj3zs1>

Reply



Brad B says:
12 April, 2020 at 9:46 am

Thank you Truth and/or Dr. Todaro...

Reply




Watcher of the road says:
12 April, 2020 at 8:50 am

Boris Johnson has been discharged from hospital. That means that he is cured, in just 7 days. That's a HCQ + AZM typical cure period.

Can someone ask Boris Johnson about how he got cured so fast when letting nature take its course it takes a month for one to be virus free?


Reply



Colintd says:
13 April, 2020 at 3:40 am

From what I've read he was probably asymptomatic for a period (7 to 14 days is common), suffering symptoms for 10 days before admittance, then 7 days in hospital (oxygen not ventilator) , and he is still recovering, probably still with viral load. This isn't a 7 day miracle.

Reply



Brad B says:
12 April, 2020 at 9:44 am

The politicization of HCQ has got to stop (Boris)!

The data coming from New York clearly shows HCQ + Zith is working. As far as the heart problems with Zith I have read some doctors are using Doxycycline. But where is the Zinc! So simple, so necessary...


Reply



Paul Williams says:
13 April, 2020 at 10:57 am

Yeah just switch to an antibiotic that doesn't assist have the side-effects. Doxycycline, for example .

Reply




Isaac G says:
12 April, 2020 at 11:32 am

Seems like people are attaching this HCQ thing with politics a lot.i have not been a fan of trump and his awful presidency,but i have to agree with him on this one.the thing is HCQ has been on trial on

many people in different countries. Although there were no enough control groups on these studies, people who are taking it are most likely feeling better and viral loads have been seen much better than people who didn't get it globally. When it normally takes about 21 days to get rid of it, people on HCQ are getting rid of it in 6 to 10 days. This situation is a total emergency. We are at war. And as Dr Oz said, you go to war with the army you got. And right now, these are the best we got. These drugs have been around for more than 60 years and all the side effects have been largely studied over the years. So using HCQ and Zpac, the benefits are much greater than the risk. To put it in simple words, I am sure each and every one of you here arguing that it's not right to treat people with HCQ, would take it if you were sick. That's for sure.


Reply

 **Robert Monje** says:
12 April, 2020 at 11:36 am

1 word- Leronlimab!

It's working, it's safe, and should be emergency approved by FDA bottom line! This should be about saving lives! It is saving lives and will continue too. Blows my mind FDA wants double blinded Placebo trials during this time. It freakin Works so why do that!

Reply

 **Len** says:
12 April, 2020 at 12:11 pm

This 2016 in vitro RAT study by Nagla A. El-Shitany and Karema El-Desoky(1) may offer some incite in that carvedilol (Coreg) with vitamin C decreased ROS, inhibited NF-κB expression and decreased pro-inflammatory cytokines IL-1-β and TNF-α production.

It would be interesting to know if any patients in the CQ or HCQ with Azithromycin trials were also taking carvedilol and how they fared.

1. Protective Effects of Carvedilol and Vitamin C against Azithromycin-Induced Cardiotoxicity in Rats via Decreasing ROS, IL1-β, and TNF-α Production and Inhibiting NF-κB and Caspase-3 Expression
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4871977/>

Reply

 **meryl nass, MD** says:
12 April, 2020 at 1:52 pm

According to Lexicomp, the drug interactions database used by probably more medical providers in the US than any other, the combination of hydroxychloroquine and azithromycin is labelled a “C” – which means the combination is acceptable to use but should be monitored.

Why aren't people like yourself looking at the accumulated safety data from millions of people over decades who have used chloroquine and hydroxychloroquine? Why has the tacit assumption been made that IL-6 blockers and remdesivir will be safer? There is only a tiny database on safety for those drugs, but the media would have us believe they are preferable. Please explain.


Reply

 **loupgarous** says:
12 April, 2020 at 2:52 pm

Dr. Nass: does Lexicomp provide a number of cases in which azithromycin and hydroxychloroquine were administered together? Does it contrast that with cases in which either drug (or both drugs) in the combination were withheld in favor of other therapy *in the same conditions*?

By the time someone presents at an ER with what's undoubtedly mid-stage COVID, they're already sicker than most folks in the Lexicomp database. The “C” rating for azithromycin and hydroxychloroquine doesn't provide numbers for adverse events, or specific contraindications for either drug, I'm willing to bet (though a reasonable standard of care implies the person prescribing drugs has read their package inserts for that info, specifically the black box warnings).

Reply

 **blogreader01** says:
12 April, 2020 at 2:16 pm


So, thanks to our hyper-cya (&/or political-agenda-driven) friends at the fda and within various state governments, one's chances of getting dosed in a timely manner with hydroxychloroquine aren't good. Shame about that; especially since the overwhelming majority of treated persons will experience zero significant side effects. Ah well, when you're dead, you're dead. Sayonara and all that ...

For those who view bureaucratically induced death as unsatisfying, ivermectin might, at this juncture, be the one/only fighting chance you've/we've got. It's a “wonder drug” that's available (without prescription) and medicating yourself with extra-high dosages of it will probably will be ok. Search google for news regarding interesting new (in-vitro) study results.

<https://www.ncbi.nlm.nih.gov/pubmed/12362927>

“Ivermectin was generally well tolerated, with no indication of associated CNS toxicity for doses up to 10 times the highest FDA-approved dose of 200 microg/kg. All dose regimens had a mydriatic effect similar to placebo. Adverse experiences were similar between ivermectin and placebo and did not increase with dose.”

Reply

 **Toni** says:
12 April, 2020 at 3:01 pm

<http://www.microbe.tv/twiv/>
...Podcast 599; there you will find serious information about Ivermectine (min 2-25)

Reply

blogreader01 says:



12 April, 2020 at 9:47 pm


The podcast misses a couple of crucial points!

Yes, the in-vitro concentrations used in the study were stupid high; that is, vis-a-vis what could be reasonably expected if FDA-approved dosages were administered to a covid-19-infected person.

However (a) much, much higher dosages are a viable option and (b) a said-infected person wouldn't necessarily have to have his/her viral load reduced to nearly nothing on day one.

Conclusion: While self administration of ivermectin would be a long-shot/hail-mary step, it would not be a totally ridiculous one.

Reply



Toni says:
13 April, 2020 at 2:49 am

Dear Blogreader,
sure, but I just wanted to relativize your very apodictic quote of a miracle drug.

Reply




blogreader01 says:
13 April, 2020 at 11:43 am

Miracle drug? Maybe.

Wonder Drug? Definitely.

<https://www.nature.com/articles/ja201711>




T.O. says:
12 April, 2020 at 2:17 pm

Gov. Cuomo's press secretary Melissa DeRosa says that a study into the use of Hydroxychloroquine to fight COVID-19 in New York State will report preliminary results on April 20.

I'm an investor, so I have absolutely zero incentive to listen to idiots like Trump, zealous French doctors, or those equally idiotic Democrats on the opposite side of the aisle. I make decisions based on data, first hand knowledge, and potential financial gain—wax poetic about my apathy toward the cause, I don't care.

On April 20, I'm hedging I will be buying into my shares. I'm hedging this because the markets will see a sudden and consistent recovery. From what I've been told by some physicians/friends in center city, the HDC/Z/Doxy regimen is responsible for dramatically reducing ICU/intubations.


Reply



Ash says:
12 April, 2020 at 3:59 pm

Trump looked at some indications and said, "Hey, this might be a game-changer." If any other pol had said that, no one would have batted an eye.

Reply



TDM says:
12 April, 2020 at 3:17 pm

So...umm why the cherry picking here?

there ARE 19 finalized studies of HCQ to DATA. Yes, I concede these are not CDC/FDA high threshold DBT studies (but neither ARE the two you based your opinions on in this article).


Based on this article MY OPINION is that

- a. you aren't very good at collecting data.
- b. a block of salt is necessary when accepting your opinions.
- c. what is your experience with HCQ formerly with ANY lupus or R-Arthritis patients? Directly?
- d. Would you care to explain why there are ZERO...none..NADA. case of positive cases of COVID-19 for persons who have been taking HCQ for lupus AND R-arthritis...
- e. you are more than likely to have some agenda.....

perhaps if you want to be taken seriously, you might want to describe the situation in a more thorough, skillful, TRANSPARENT, manner.

THAT would be helpful.

Reply




David S says:
12 April, 2020 at 4:22 pm

Per this survey of lupus and RA patients (April 10 update), 234 surveyed patients have tested positive for COVID-19. Of those, 68 were taking HCQ before their diagnosis.

It's a self-report survey, so be cautious, but it is evidence that people taking HCQ do develop COVID-19.

<https://rheum-covid.org/updates/combined-data.html>

Reply




James says:
12 April, 2020 at 3:58 pm

IF Hydroxychloroquine + zinc is effective, it is possible quercetin/ecgc + zinc is also effective as I have seen discussed in the comments here and other sites. What you don't read is any dosage information other than this 1 web page which recommends 10mg of zinc + 500mg of quercetin on an empty stomach. Any thoughts on this would be appreciated.

Discussion reference – <https://nutritionalpharmacology.wordpress.com/2020/03/21/combat-ing-covid-19-with-zinc-and-quercetin/>

Reply




Curtis Philips says:
14 April, 2020 at 4:43 pm

Did you see mario lento post way above this thread? He used:
Normally I get about 15mg daily of Zn: 1 ‘CA/Mg/Zn’ capsule (from Costco) 3 x day (label dosage is 2 pills so I get extra). I also take D3 2000 IU in winter 3 x day. Vit C 1gram, 3 x day. Plus B complex and other stuff.

When I am sick I take wellness formula by source naturals. 6 capsule 2 or 3 x day. That has extra Zn too which gets me over 75mg Zn. I take a 500mg quercetin capsule 1 x day and that will work fine.

I had the fever and lung rumbling aches and pains for 5 total days and then it literally stopped. I did need to take an inhaler with Albuterol to breathe.

Reply



mario lento says:
14 April, 2020 at 5:19 pm

Hi Curt is: Thank you for your comment.
James says:
12 April, 2020 at 3:58 pm

First: James thank you for doing research!
Although I hate appeals to authority, I need to state I am not a doctor – and so I do not have that authority here! So I laid out what “I do…” and that might not be right for everyone.

That said, too much of any one thing is liable to set things off balance. That is why I bumped up the nutrients I take while being sick and otherwise try to balance nutrient intake.

One thing to note, if you only supplement a single mineral every day, in this case Zn, then other mineral balances or imbalance is likely. Too much Zn robs Cu in the body! So that is why I take a few different juiced fruit and veggy powders and just a small amount of some of the important high quality minerals and supplements at minimal levels when I am not sick.


While sick, my thought is that “too much” Zn for a short while will make sure I have ample Zn to poison the Virus’ replication process and create an environment that is known, anecdotally at least, to make it tough for them. By too much, I am still supplementing less than what I have read about, like 200mg. Since I assume I am not Zn deficient, the small bump to 75mg is probably helping.

I do not know the “metrics” of how much Quercetin is needed nor how much of an ionophoric effect it has compared to HCQ as an ionophore. But I do know that Quercetin is a Zn selective ionophore. Also read up on Green Tea extract, which I also take every morning! It’s a source of EGCG (Epigallocatechin Gallate), which has tremendous benefits for inflammation which affects breathing.

So I assume I am not deficient in quercetin, but take it when I am sick… an extra 500mg just bumps me up an order of magnitude more than I believe I get from food.

Other things I take help with overactive macrophages. That is part of the whole cytokine storm response in which macrophages tear up proteins including your own cells… read that, your immune response is also tearing holes in your lungs so they leak. So I always take astaxanthin too. But how far down the rabbit hole do you want to go?


Reply



Curtis Philips says:
14 April, 2020 at 5:49 pm

Until there’s a definitive cure/prophylaxis, not even authorities can give an authoritative opinion, so I appreciate your personal info. I’m proactively taking 500mg Quercetin daily plus at least 30mg zinc. Also astragalus and olive leaf extract and vitamin d and curcumin and vitamin c. So far so good, but isolating so not at much risk either.

Reply




mario lento says:
14 April, 2020 at 6:22 pm

I do take curcumin too… keeps inflammation at bay. I don’t take the herbs unless I get flu like symptoms and then they seem to work best. My wife has all sorts of tea ingredients so I do all of the good stuff, like echinacea, astragalus, and so on. I’d be careful with the extra Zn over a long period. And if you’re healthy, and under 50, I’d not be worried about Covid 19. What I did not say was that compared to other times I’d been sick, this was relatively short and less awful.

Usually, I get a sinus thing that turns into a throat thing and then always ends up as a lung thing. So I get it in all three at the same time once it’s full blown. This started and ended in my lungs. So that misery was kind of all in one place.

Anyway – since I started learning about this stuff, whenever the “flu” or colds or other Coronaviruses are going around, I either don’t get them or I get them and kill them off in a day or two. So, anecdotally, along with understanding the science of the mechanisms, I feel good about the control I have.

Mario



Ash says:
12 April, 2020 at 4:14 pm

Why does TX and LA have lower death rates than would be expected? Both states started using HCQ early on. Is that the reason?

Reply



Joshua says:

13 April, 2020 at 3:30 am

Add to that Portland and Seattle. We actually have more ICU beds and respirators than we need, and are loaning them out to other cities.

Reply



Scott Mendelson says:

12 April, 2020 at 6:17 pm

A common problem in research is that a statistically significant result can be obtained that has no clinical significance. For example you might find that 11% of control groups get well whereas 17% of treated patients get well. If the number of patients is large enough, that will be a significant difference. This will get translated as,“Wow! This stuff really works!” Unfortunately, most of the patients will still die. It may help some people, but it is no game changer.

Reply



Gray Dog says:

12 April, 2020 at 7:41 pm

HCQ was given to hundreds of thousands of U.S. troops in Vietnam. Passed them out like candy to prevent malaria. Why no safety concerns then? All evidence indicates that as drugs go, this one is very safe. So much hand wringing over very small number of adverse outcomes around the world for decades. Let doctors prescribe for informed patients. The potential benefits seem to far outweigh the potential side effect.

Reply




Colintd says:

13 April, 2020 at 3:45 am

I suspect lead poisoning levels in Vietnam tended to mask _relatively_ low level side effects of HCQ...

Reply




Hugo says:

13 April, 2020 at 10:04 am

Might also be that malaria is 10-40x deadlier than covid-19 (20% untreated mortality rate), and HCQ actually works against that disease.

Reply



Victor Rodrigues Ribeiro Ferreira says:

12 April, 2020 at 9:17 pm

There is a study in progress very well elaborated addressing the use of Hydroxychloroquine, called “Coalisao COVID Brasil”. The study involves the main hospitals in the country and the results will be highly reliable

Reply




Dr. Sardonicus says:

12 April, 2020 at 9:55 pm

Another so called ‘expert’ trying to stop scientists from finding a cure. I’d say 98% is pretty darn good. Yes the final paper isn’t finished being written yet, They are probably busy correlating data and making it presentable. Oh and by the way who gave Mr. Lowe right to print his critique of someone else’s work before it’s even been published? Stuff this guy down the debbie downer rabbit hole.

Reply



JP Leonard says:

12 April, 2020 at 11:03 pm

To André Nadler,
thanks for posting the fascinating link about Raoult and “contre la méthode.” However what I believe he is saying is that we are using a method for chronic diseases that is not suited for an emergency, but is not rejecting the scientific method out of hand. I would agree with him on that. I found this article from a French site and translated parts of it
<https://www.ladepeche.fr/2020/04/08/lutte-contre-le-coronavirus-pour-didier-raoult-on-a-mis-la-charrette-avant-les-boeufs,8838172.php>


Raoult Counters
Translation from <https://www.ladepeche.fr/2020/04/08/lutte-contre-le-coronavirus-pour-didier-raoult-on-a-mis-la-charrette-avant-les-boeufs,8838172.php>
Professor Didier Raoult has been widely criticized for his methods used in the fight against the coronavirus. He replied,
“In the crisis caused by the coronavirus epidemic, it appears that we put the cart before the horse, that is to say that we imposed a method before even asking ourselves what problem we have to solve.”
He is particularly criticized for the fact that patients are not drawn in “randomized trials”), as is customary.

The Marseille microbiologist counterattacks and explains that “randomized trials, which western countries have adopted as a methodological standard in the current crisis, are a concept imported from the world of chronic diseases”. However, according to him, this research method is not at all adapted to the current situation and the urgency it calls for.

Instead of looking at “drugs already on the market, readily available and which we are familiar with in terms of safety and availability,” he regrets the methodology adopted by Europe which “has chosen to test several protocols in huge studies the results of which will not be available for several weeks and which relate to molecules which, in any case, cannot be marketed quickly ”.

For Didier Raoult, “this shows that, at some point, using your head for thinking gave way to a methodological routine.”


Reply



MC says:
13 April, 2020 at 1:09 am

We'll said JL, thinking on your feet during a crisis or hide in an office.....I prefer to think on my feet. We'll have time afterwards to get all the numbers and stats.


Reply



John says:
12 April, 2020 at 11:20 pm

Can anyone explain why they are not using postural drainage?


Reply



John says:
12 April, 2020 at 11:36 pm

Why is there no mention of Lasix or even Claritin?

Reply



Joshua says:
13 April, 2020 at 3:27 am

While taking HCQ with AZM for a month would indeed be worrisome, doctors are aware of the risks and use extra monitoring because of it. Perhaps more relevant though, is that in the hospital I work at, when we were using HCQ, it was for between two and four days, with the average closer to two. As I said though, we used to use it. I haven't seen it prescribed in the last week as other treatments seem to more effective.


Reply



LEEPERMAX says:
13 April, 2020 at 4:28 am

What everyone is missing is that ZINC SULPHATE must be included for positive results.

Reply



Sb says:
13 April, 2020 at 5:21 am

Why the 2003 SARS outbreak disappeared all in a sudden???

It is time for a scientific question on this international blog intended to discuss drug discovery, some out of the box thinking and debating concerning DRUG DISCOVERY and hopefully less political emotions from the US (pff: please shut up and look for another blog).

In the Lancet (March 5th) the authors intro first describes the SARS outbreak in 2003 which resulted in more than 8000 cases and 800 deaths (spread all over the world) and the explanation of its disappearance: "SARS was eventually contained by means of syndromic surveillance, prompt isolation of patients, strict enforcement of quarantine of all contacts, and in some areas top-down enforcement of community quarantine" Is this the full explanation?

In this blog I noticed some concerns regarding the mutation rate of these RNA-viruses, which may complicate vaccine development.

Would it be possible that a high mutation rate for RNA viruses such as SARS-COV with fast pandemic spread (facilitating more mutations) also 'quench' their virulence and disappear (because the original high performance RNA sequence for human is not present any longer)....for the time-being wishful thinking, but perhaps it was an unrecognized mechanism in stopping suddenly the SARS outbreak in 2003.....

Any other scientific publications or suggestions why SARS-COV disappeared all in a sudden in 2004 and was not spreading so broadly as related SARS-COV2 in 2020. Any evidence that mutations in RNA viruses during infection periods-being very contagious- lead to spontaneous disappearance of a disease in particular species (excluding herd immunity as driver)


Reply



MJY DVM says:
15 April, 2020 at 2:22 pm

Probably the biggest reason is that while SARS is thought to have a higher reproduction number (R0, the number of individuals an infected individual is likely to spread the disease to, was estimated at 2-4), there appear to have been few asymptomatic cases, meaning a stronger social response to hospitalize and isolate patients and get that R0 down. SARS-COV2 has an estimated R0 of 2-2.5, although this may be somewhat influenced by testing limitations, so would be expected to spread slower. The lower morbidity and mortality rate though meant there was a less strong approach to identifying and containing the infected, and with 70-80% of infected individuals showing no to mild signs (but still able to spread the disease) this less aggressive approach failed to significantly diminish new infections.

Reply



Jim Thompson MD says:
13 April, 2020 at 7:35 am


Should clinicians prescribe HCQ if it's not yet proven with a good RCT, but some data is suggestive? The two studies presented here show HCQ is safe enough to prescribe liberally for anyone not at CV risk and not also on azithromycin, and that it may help. It seems reasonable to offer every patient not at increased risk from either of those two things early treatment with HCQ. In my personal opinion Gov Cuomo's edict to restrict HCQ is beyond stupid. Available data suggests early use to prevent progression to serious disease is where you will save the most lives and the most strain; use restrictions prevent that. Let the patient decide in concert with a physician.

Reply

 **Alex G dos Santos** says:
13 April, 2020 at 8:07 am

Good, in my personal opnion Brazil have a expectative absolutely unefound and new studys are necessary for show real action of drug. I'm lives nearby the Apsen industry pharmaceutical in Brazil and she haven't study for this case.
The Bolsonaro presitent have a dream of have good global popularity becouse in this moment your fame is bad.

Reply

 **Rich Stern** says:
13 April, 2020 at 11:05 am

Wow, the comments here are confusing and sad. Very political, particularly for what should be a scientific discussion.

As for wanting something to fail, this is sort of how science is done. The scientific method is not above proving your idea. It's about not being able to disprove it. In other words, science progresses by proposing a hypothesis, and then trying to disprove it. The more you cannot disprove something, the more it becomes accepted as fact. The method works regardless of who is sitting in the White House.

Reply

 **Casey** says:
13 April, 2020 at 1:51 pm


I'm not sure about this but, wasn't all of this based off of Zelenko's original success with the cocktail he was administering? If so would it be possible that zinc sulfate plays a critical role in the prevention of some of the heart issues we are hearing about. Are any of these controlled studies using it?

Reply

 **Michael** says:
13 April, 2020 at 3:33 pm

Excellent article on how Covid-19 affects the heart. This may help explain why HCQ is not as tolerated for severely ill Covid-19 patients. <https://newsnetwork.mayoclinic.org/discussion/how-does-covid-19-affect-the-heart/>

Reply

 **Gunther Schadow, MD, PhD** says:
13 April, 2020 at 6:46 pm

This is all guesswork.
The Brazilian study has not shown at all that CQ is not effective.
But they have killed a couple of patients with excessively high dose, and thus unintentionally done the world a favor to demonstrate that even extreme overdoses are safe!
They also have wasted time by not including early non-severe cases in the study. Because it might just be too late to run after very severe cases with HCQ.
So much time is being wasted by not doing more informal studies quicker. There are so many patients that are lost that all could add to the evidence.
The Brazilian study has established that the malaria protocol for HCQ should be used, and that no study should waste any more patients and time on low-balling dosage.
800 mg once, followed by 400 mg after 6 hours, followed by 400 mg on day 2 and 3 and if you want a couple of more days.
This is safe, and can be done in outpatient settings and OTC.
Didier Raoult with 600 mg fractionated as 200 mg 3/d for 10 days is dosing too low, and I believe that azythromycin is effective in his case by a simple pharmacokinetic interaction, pushing his low dose over the limit. He should kick in with a higher loading dose. He also doesn't need 10 days because that only titrates the patients to late-phase minor ECG-cosmetic AEs, if any. There is no point in reaching the highest plasma concentration at the last day of the 10 day treatment.
There is no study at all that has shown convincingly that HCQ does not work. Only wastes of time with low-balling doses.

Reply

 **Randall** says:
13 April, 2020 at 8:43 pm


So they're intentionally leaving out zinc?

As I understand it, the only value HCQ has is to open up a pathway for zinc.

They set these trials up to fail to push an agenda clearly.

Every institution in this country is corrupt.

Reply

 **JP Leonard** says:
14 April, 2020 at 1:55 am


The zinc pathway is not the only capability that HCQ offers, but it should work a lot better with zinc. HCQ does have some antiviral ability. Zinc blocks viruses 4 ways. Together they should do the trick. I don't think Drs. Zelenko and Cardillo are making it up. I've just finished a 15-page research paper on this.
<http://www.progressivepress.com/dox/thinkzinc.pdf>

Reply

 **T Hope** says:
14 April, 2020 at 11:43 am

Thank you. An excellent paper. I hope it gets widely disseminated. Explains why here in Toronto Zinc has disappeared from pharmacy shelves.

Reply

 **chiz** says:
14 April, 2020 at 11:43 am


As far as I can tell this Zinc stuff was started by a poorly researched medcram video, by someone who came across some stuff about zinc and decided not to look for anything else, and is being touted by people who can't be bothered paying attention to detail.

We're told that Cardillo in LA treated patients with Zinc and cured them. Some versions of the story go further and say he had a 100% cure rate which sounds even more impressive. But if you watch the abc7 video he says that he treated 5 patients. 5!! That's not a very impressive number. Supposedly he got results in just 8-12 hours but it's not clear what the source for this claim is. Everyone seems to quote this time-frame but it's not in the abc7 video, and it contradicts Zelenko in NY who claims it takes 5 days to work.

What's even weirder is that if you look at what Zelenko claims (details [here](#)) it's clear that many of his patients probably didn't have covid-19. He just assumed, for example, that if they had shortness of breath, that they had it.


If it wasn't for the fact that the NYT spoke to Zelenko, confirming that he's a real person, I'd wonder about this zinc story being of Russian origin.

Reply

 **theg9** says:
14 April, 2020 at 4:30 pm


Yet you make no effort to clearly describe why you believe the "HCQ as a Zn ionophore" theory is incorrect. Even though you can easily find legitimate sources of information stressing zinc's vital role in the immune system, and its effect of inhibiting the RNA replication of this type of virus...

Reply

 **chiz** says:
15 April, 2020 at 11:24 am

The reason I make no effort to clearly describe why I think the "HCQ is Zn ionophore" theory is incorrect is because I clearly made no such claim.

Reply

 **JP Leonard** says:
15 April, 2020 at 11:38 am

Chiz, the zinc stuff started in the early 60's, see Ananda S Prasad, "Discovery of Human Zinc Deficiency: Its Impact on Human Health and Disease." Most recently it started with reports of a Sars-Cov-2 cure by Zelenko. Some body needs to test his results and prove him right or wrong. So far we have Dr Cardillo who confirms (and perhaps others who have good reason to remain anonymous, judging by the post by the Maine physician here?) and no doctors who have tested it and said it does not work.

As for the Webcram video, I thought it helped to visualize the role of zinc and its ionophores in cells. I would be obliged if you could give more details on how it is poorly researched, because I have referenced it in my research paper, which I admit does require a certain attention to detail. <http://www.progressivepress.com/blog-entry/think-zinc>

Regarding Cardillo's low sample size, he is focusing on very ill patients, I thought about 8 or 10 cures. You may be right about Zelenko giving out his prescription very liberally. But even a small group with remarkable results is remarkable. As I observed in my research blog,

"You have a patient getting seriously sicker and sicker for 15 days. On the 16th day they get a treatment, and suddenly they are well. What are the odds? A lot less than one in 16. But for now, let's give the coincidence theorists 50% odds it was just chance. So then you have 10 patients in a row that respond to the same treatment the same way. The odds of that happening by chance are 1 in 210. One in a thousand. Go back and take the one in 16 chance 10 times over, the odds are one in a trillion. You just don't need trials of thousands of cases to see what's plain as day. Each patient is important. This anecdotal rejection fallacy is a form of denial, a way of telling us that we are just imagining things."

Also I do not say that HCQ works against Sars-Cov-2 only as a zinc ionophore, only that there is very good reason to believe works better with zinc supplementation.

Reply

 **Bryn Duffy** says:
22 April, 2020 at 7:33 pm

Yes. It is all corrupt. They will not run a proper trial on this cheap generic drug. I wrote to The Centre for Evidence-Based Medicine (CEBM) in Oxford. I asked if they knew of a trial that used the advocated hydroxychloroquine at Lupus dosing along with Zinc for the treatment of COVID-19. And the answer was NO.

If is shameful. Here we have our society ripped to shreds by a deadly virus costing us \$Trillions and we still cannot produce a \$million dollar study for the sake of all those lives currently in jeopardy and all those who have lost their livelihoods.

Reply

 **Alan Lee** says:
13 April, 2020 at 10:56 pm

Some animal studies indicate use of antioxidant mitigate the side effects of ionophore like Chloroquine or derivatives. Should try, it without major risks.

Reply

 **Kathleen Viscusi** says:
13 April, 2020 at 11:53 pm

I am so confused by all of this fuss. I am a dermatologist (yes, we are MDs), and as dermatologists, we have used hydroxychloroquine for years off-label for patients with cutaneous lupus, lichen planus (esp oral erosive), granuloma annulare, cutaneous autoimmune disease... etc etc etc..usually at 200 mg po bid, but loading doses of 400 mg po bid also used initially. I attended Emory University medical school and for my internship and UNC Chapel Hill dermatology residency program. Patients have annual exams w an ophthalmologist (also MDs), and that's pretty much it. I have never seen a single cardiac complications, much less any serious complications w this medication. I so wish people could see beyond politics. It is safe, beyond a doubt. I also actually have seen first hand evidence (anecdotal of course) that it works...

I'm in the why not group? In vitro, makes sense, in vivo also yes if you don't poison your patient. Why does political disdain for Trump have to ruin a potential treatment? Personally, I don't really care what he says, and I wish he'd never mentioned the medication at all. I'm telling you it is safe and it may work.

Question to all MDs out there: why don't we look at all patients currently on plaquenil long term for their RA or lupus or lichen planus etc and report if any have either A) tested positive for covid-19 or B) been hospitalized or c) died?


it would be an easy data sample to analyze... why hasn't it been done?

Reply

 **Emmanuel Ohannessian** says:
14 April, 2020 at 12:23 am

Dr. Oz did that. he posted on youtube. no patient with lupus had the virus. Except one who is taking the drug intermittently.

Reply

 **Bob TM** says:
14 April, 2020 at 9:13 am


Dr. Oz is a well-known fraud and quack, so I'd be pretty sceptical anything he touts. He has a long, well-documented history:
– <https://sciencebasedmedicine.org/lies-fraud-conflict-s-of-interest-and-bogus-science-the-real-dr-oz-effect/>
– <https://www.livescience.com/50576-dr-oz-miracle-claims.html>
– <https://www.thedailybeast.com/why-is-alleged-quack-dr-oz-giving-coronavirus-advice-on-the-today-show>
– <https://www.latimes.com/science/sciencenow/la-sci-sn-dr-oz-claims-fact-check-bmj-20141219-story.html>
– <https://www.healthnewsreview.org/2018/02/pulling-back-the-curtain-on-the-doctors-and-the-dr-oz-show-what-our-analysis-reveals/>

Reply

 **theasdgamer** says:
16 April, 2020 at 11:10 am


Or you could look at Plaquenil info on the rheumatology website.

Reply

 **Bob TM** says:
14 April, 2020 at 5:07 am


Christ people, so much politics and desperate confirmation bias shown here. For the record, I'm not from US, I don't care about Trump as neither does most of the world's population. We all want there to be a working cheap medication that we can tackle Covid with, but let's stick to science. Either it will be beneficial or not, politics are unlikely to change that. I myself was initially very hopeful, but it now looks like HCQ is not quite the silver bullet we are hoping it will be. I'm more than happy to be proven wrong on that, in fact I hope I am wrong, but please don't use flawed data coupled with conjecture to prove your point. Lupus patients do get Covid and die from it too, you only have to do a short google to see it. Doesn't mean HCQ has no benefit, but inventing "facts" to hype something up just so that you can "win" an anonymous internet argument is stupid.
<https://creakyjoints.org/symptoms/lupus-patients-do-get-coronavirus/>

Reply

 **Graham** says:
14 April, 2020 at 5:47 am


Bob, I understand your sentiment but I checked your link, which is really just a report, and then onto the site that is collecting this data, COVID-19 Global Rheumatology Alliance, where they show over 8000 registered RA/lupus patients registered and 327 with Covid-19. I'm not sure that means that HCQ is not effective. They do not post deaths, if any, as that is the real measure of the proposition. I know of two case studies where lupus patients have had COVID-19 and successfully survived the disease. As Zelenko says "the measure of success is to not die". I will watch the GRA site for reported deaths in lupus patients.

Reply

 **TDS** says:
14 April, 2020 at 8:53 pm

327/8000 = 4.1%. 110,465 COV19 cases in NYC/ 8,400,000 population = 1.3%.


Reply

 **Frank Schaper** says:
14 April, 2020 at 9:26 pm

Actually, they do list deaths and hospitalizations: Death 10 (4.27%), Hospitalized 91 (38.89%) out of the 321 COVID-19 cases. However, only 29% of the patients were on HCQ. There is no information what percentage of the dead or hospitalized patients were on HCQ or if they actually took it.

I fear that this one only shows that it is not a prophylactic... which not many people ever claimed anyway.

Reply



N Hoo says:


14 April, 2020 at 5:56 am

Prof. Didier Raoult, who first proposed a HCQ protocol to manage Covid19 in the West, did so for the early stages of the disease, never claimed HCQ to be a cure, much less a prophylactic. He reported that it decreases infection duration from about 20 to 5 days, decreases viral loads, and prevents progression to later, more life-threatening stages.

“lets stick to science” This appeal is almost becoming the hallmark of the political operative, or maybe the very naive activist.

How about let’s stick to facts?

Reply



Bob TM says:

14 April, 2020 at 8:49 am

Sure, facts are that great claims are made about zillions of substances for zillions of conditions, often accompanied by small, flawed studies to support those claims. Then a bit later those studies are repeated with a stricter criteria and said substances are found to be a pointless waste of time.
Appreciate its easy to catch enthusiasm and hope at this strange time, but being a bit sceptical and making sure your data is valid is more than important . Arguing here is a bit pointless, let give it a few weeks and we shall see, HCQ is being trialled all over and we shall have some far better indicators to form our opinions on. So far, based on latest reports its not looking that amazing:
<https://www.livescience.com/coronavirus-chloroquine-study-stopped-early.html>

Reply




Robert Clark says:

14 April, 2020 at 10:21 am

As mentioned has been mentioned before, this Brazilian study was with chloroquine which is known to have worse side effects than hydroxychloroquine.

Robert Clark

Reply



mary says:

14 April, 2020 at 7:43 am

Quercetin is a bioflavonoid supplement that acts as a zinc ionophore (allowing access of zinc into cells to inhibit virus replication). Similar in this respect to Hydroxychloriquine which also works as a zinc ionophore.
Dr Michel Chrétien and Dr Majambu Mbikay – study for covid 19 underway, positive results in mice with its use against Ebola and Zika(4).

Reply



Jan De Mey, PhD says:

14 April, 2020 at 9:08 am

Thanks for your objective reporting on progress/problems with the use Hydroxychloroquine in the treatment of COVID-19.
It’s a pity Dr. Raoult and his team mainly communicate in French, but this can be overcome by using an on-line translator.
You wondered why in the so-far unpublished study with 1062 patients, there were no cardiovascular side-effects. It went probably unnoticed, that every patient receiving the treatment in the IHU of Marseilles goes through a “Securitisation protocol” described here: <https://www.mediterranee-infection.com/procedure-de-securisation-de-la-prescription-du-traitement-hydroxychloroquine-azithromycine/>
“We routinely performed an electrocardiogram on all COVID-19 patients who were candidates for treatment and, if prescribed, repeated the electrocardiogram after two days of treatment.
To date, the patients concerned were all consecutive patients treated for COVID-19 by Professor Raoult’s team, either as outpatients or in conventional hospitalization.
The QT interval was measured on the first electrocardiogram and corrected according to Bazett’s formula
The recommendations were as follows:
* Prescribing authority if the corrected TQ was less than 460 ms
* Case by case discussion of the benefit-risk in case of a corrected TQ 460 ms and 500 ms
* Contraindication in case of corrected TQ greater than or equal to 500 ms.
* Independently of the value of the corrected QT, a list of drugs that could lengthen the QT interval was provided to prescribers in order to avoid co-medication with any of these drugs.
* Furthermore, in case of doubt, it was recommended to check the patient’s kalemia.
* Finally, a “hot line” was set up between infectiologists and cardiologists to treat problems as quickly as possible.
Currently, out of a significant number of pre-prescription electrocardiograms (more than 500), treatment has only been contraindicated in exceptional cases. Only in even more exceptional cases has treatment been subsequently stopped for cardiovascular reasons.
The strict monitoring of patients by Prof. Raoult’s team did not reveal any significant clinical event. These preliminary observations are likely to reassure prescribers about the safety of using this drug combination in the threatening epidemic context that we are aware of.
Cardiology Department, Prof. Deharo
La Timone Hospital, AP-HM”
Translated with <http://www.DeepL.com/Translator> (free version)

Reply



Robert Clark says:

14 April, 2020 at 10:11 am

Here’s an article reporting on the OHDSI data collection study on the safety of hydroxychloroquine and azithromycin:

Hydroxychloroquine And Azithromycin For COVID-19: Benefits TBD, Risks Clear.
<https://www.forbes.com/sites/harlankrumholz/2020/04/10/hydroxychloroquine-and-azithromycin-for-covid-19-benefits-tbd-risks-clear/>


Ironically from the title, the data from this research might be the best way to determine if HCQ is beneficial or not. The reason is the huge number of cases considered, about ca. 1,000,000 people worldwide taking HCQ. The big unanswered question is whether HCQ has any effect or not on COVID-19. The several studies done showing one way or the other have been small scale and have been criticized on the grounds as not having sufficient statistical significance. Well, you can get a lot of statistical significance from 1,000,000 cases!

The prevalence of COVID-19 in the U.S. is about 1 in 500. If the number worldwide is comparable to that in the U.S. we would expect ca. 2,000 people among the 1,000,000 people in the study to have contracted COVID-19 if HCQ has no protective effect.

So that is the key question to the authors of this study: is the number of people in the study contracting COVID-19 no different statistically than that of people not taking HCQ on a regular basis?


Robert Clark

Reply

**chiz** says:
14 April, 2020 at 11:19 am


The Brazilian study has allegedly been halted due to ineffectiveness and deaths.

Reply

**ND** says:
14 April, 2020 at 12:01 pm


You know we are just not going to listen to this garbage anymore. They HC is has no patent. Drug companies want to make billions on billions of doses on vaccines, not millions on treatment. They promote expensive drugs with patents so they can “recover their high cost of education bills”. According to news reports the NIH had given Wuhan 3.7 million bucks to do what was outlawed here. You can’t trust these “highly educated” people that don’t have your best interest at heart.

Reply

**Alan** says:
14 April, 2020 at 2:46 pm


The abstract was first available on April 9, and the first sentence in “findings” +9 day treatment course, clearly there are something wrong

Reply

**Stranger in the Alps** says:
14 April, 2020 at 10:27 pm


While not surprising, it’s still sad to see that scientists are not immune to recruitment into the Trump cult. The mildest criticism or contradiction of Dear Leader, even from highly credible and neutral sources, sends them into a rage and elicits claims of nefarious hidden agendas. That’s why so much of the right has now turned on Fauci.

Reply

**Steve** says:
15 April, 2020 at 3:25 pm


Re recent suggestions that Bradykinin may be causing ling blood vessel leakage. I note Quercetin and most flavanoids are Bradykinin inhibitors. Perhaps this could explain some of the positive effect of both quercetin and hydroxychloroquine, apart from being Zinc inonophores.
[http://www.scielo.br/pdf/mioc/v86s2/vol86\(fsup2\)_182-189.pdf](http://www.scielo.br/pdf/mioc/v86s2/vol86(fsup2)_182-189.pdf)

Reply

**Omar Stradella** says:
15 April, 2020 at 3:30 pm

Another study reporting no efficacy for HCQ: <https://www.medrxiv.org/content/10.1101/2020.04.10.20060699v1>
“This study included 181 patients with SARS-CoV-2 pneumonia; 84 received HCQ within 48 hours of admission (HCQ group) and 97 did not (no-HCQ group). Initial severity was well balanced between the groups. In the weighted analysis, 20.2% patients in the HCQ group were transferred to the ICU or died within 7 days vs 22.1% in the no-HCQ group (16 vs 21 events, relative risk [RR] 0.91, 95% CI 0.47-1.80).”

Reply

**Steve** says:
15 April, 2020 at 4:06 pm

Omar – was zinc used in combination with the HCQ? – it appears not ..

Reply

**Steve** says:
15 April, 2020 at 4:21 pm

Activity of Bradykinin B2 Receptor Is Regulated by Long-Chain Polyunsaturated Fatty Acids
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0068151>

Reply

**Steve** says:
15 April, 2020 at 4:53 pm

Flavonoid Antagonism of the Spasmogenic Effect of Angiotensin, Bradykinin, and Eledoisin on Guinea Pig Ileum

[https://jpharmsci.org/article/S0022-3549\(15\)36863-5/pdf](https://jpharmsci.org/article/S0022-3549(15)36863-5/pdf)

Investigation of the antagonism of the spasmogenic effect of three polypeptides by 12 flavonoids revealed that generally, the aglucones were more potent than the glycosides. Against angiotensin the order of potency was homoeriodictyol, quercetin, morin, rhamnetin, and 4-methylesculetin; against bradykinin it was quercetin, rhamnetin, and homoeriodictyol; and against eledoisin it was quercetin, morin, rhamnetin, and catechin.

Reply

 **JP Leonard** says:
15 April, 2020 at 10:35 pm

Just posted on Medium.com – my 15-page research paper on scientific evidence why the HCQ-zinc therapy could work.


If you’re a Zelenko/Cardillo or HCQ/zinc fan – or just tired of the lockdown like me – will you give it a handclap here 😊
<https://medium.com/@leonardjpmail/think-zinc-9c114fde64bf>
It could work!
thanks

Reply

 **Josh Reynolds** says:
16 April, 2020 at 1:18 am


Great article. One point of correction – We’re talking about a dose of 200 or 225 mg of zinc, that’s 20 times the daily requirement. ACTUALLY 220mg zinc sulfate delivers 50mg elemental Zn

Reply

 **JP Leonard** says:
18 April, 2020 at 3:56 am


Thanks Josh and Steve!
Yes Josh you’re right, about the difference between zinc sulfate and elemental zinc. 220 ZnS is like 50 Zn. I made the correction in the text. More than 50 mg Zn is getting into the toxic range. It was very interesting working on this article and I learned a lot. Today I read something much shorter by a nutritional supplement guy that covers some of the same main points. <https://www.lewrockwell.com/2020/04/bill-sardi/modern-medicine-ridicules-president-s-coronavirus-drug-plus-zinc-saying-there-is-no-evidence-when-decade-old-study-goes-ignored/>
Couple interesting statements there
“An online search (April 12) at the National Library of Medicine reveals 62 published reports dating back to 1987 involving chloroquine and coronaviruses, but inexplicably none mention zinc. Nor do product inserts list chloroquine as a zinc ionophore. This is a giant scientific oversight.”
Also he reports that the Great Physician Dr. Trump came out for adding zinc to the drug combo in a WH presser on Apr. 8th.
He also links to another piece where he lists 18 serious Covid symptoms that all match up with zinc deficiency symptoms. <https://knowledgeofhealth.com/symptoms-covid-19-coronavirus-match-zinc-deficiency/> I haven’t fact checked them all but a few I have seen mentioned before – decreased immunity, pneumonia, inflammation, increased ferritin,
An interesting one is atrial fibrillation. That concurs with what I found about the link between zinc deficiency and heart disease, but it’s especially interesting from the POV that they are warning against HCQ for heart patients. So maybe HCQ is safer with zinc. They seem to be made for each other.

Reply

 **JL** says:
16 April, 2020 at 2:17 am


zinc?

Reply

 **Steve** says:
16 April, 2020 at 6:59 am

Thank you JP Leonard. Very interesting

Reply

 **theasdgamer** says:
16 April, 2020 at 2:59 pm

Ok, gotta comment on this:

“Worryingly, significant risks are identified for combination users of HCQ+AZM even in the short-term as proposed for COVID19 management, with a 15-20% increased risk of angina/chest pain and heart failure, and a two-fold risk of cardiovascular mortality in the first month of treatment.”

First month? What are the blood levels at the midpoint of the first month as compared with after five days?

Come onnnnnn...


Reply

 **Squirrilla** says:
17 April, 2020 at 7:08 am

Resveratrol is a powerful modulator of inflammatory cytokines, including IL-6, demonstrably antiviral, demonstrably healthy, and already in the supply chain. It may be possible to do something like PReP with it. (prophylaxis of illness) Why don’t they devote some energy to studying that? Many other polyphenols hold promise of doing something similar too. Perhaps Quercetin, Berberine? Or Emodin, which also occurs in Japanese knot weed, the invasive plant, (along with resveratrol) Resveratrol and emodin open up the possibility to make a tea to treat it in areas without access to purified

resveratrol? Other related polyphenols occur in thousands of different plants. Few if any have been investigated, why not? These are just guesses but resveratrol is a strong ones based on what I know about it's properties against other viruses, pulmonary diseases, and sepsis. Resveratrol remarkably may even address many of the symptoms and co-morbidities too—which is remarkable- of COVID-19! However, it exacerbates Hepatitis C. It's a remarkable substance with activity against dozens of viruses, and pathogens, fungi, bacteria, but as it may exacerbate some other viruses it needs to be tested first. Why don't they?

Reply

 **drsnowboard** says:
17 April, 2020 at 2:48 pm


Because resveratrol sticks like shit to a blanket to any assay you throw at it? What's it's volume of distribution ie does it ever get out of the plasma compartment before being extensively metabolised?

Reply

 **Derek Lowe** says:
17 April, 2020 at 3:00 pm

Resveratrol, quercetin – it's a zoo in here these days.

Reply

 **drsnowboard** says:
18 April, 2020 at 2:27 pm

The only thing necessary for the triumph of the supplements industry is that good men do nothing...

Reply

 **Lane Simonian** says:
17 April, 2020 at 3:55 pm

Multiple studies have provided a slew of mechanistic explanations for the potential effectiveness of various polyphenols against coronaviruses.

<https://bmcinfectdis.biomedcentral.com/articles/10.1186/s12879-017-2253-8>

<https://jvi.asm.org/content/78/20/11334>

<https://www.jkms.org/Synapse/Data/PDFData/0063JKMS/jkms-27-1472.pdf>

Most if not all of the clinical trials focusing on this general approach are coming out of China.


<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7098036/>

Reply

 **Truth9834** says:
17 April, 2020 at 10:52 am

<https://www.themoscowtimes.com/2020/04/17/russia-approves-unproven-malaria-drug-to-treat-coronavirus-a70025>

Reply

 **Rob** says:
17 April, 2020 at 11:37 am

Other than the political aspect, why are people so focused on the HCQ part of Raoult's therapy? You've got an anti-parasitic, an anti-bacterial and zinc. Most of the trials are leaving out the zinc, the only one of the three with any known anti-viral activity.

Reply

 **theasdgamer** says:
17 April, 2020 at 2:37 pm


If there's a cheap solution solution where the risks are known, why research an expensive solution with unknown risks? Where's the incentive to test the cheap solution?

Reply

 **Richard C Greninger** says:
18 April, 2020 at 1:45 am

If you look at the trials identified by CDC there are over 6 involving HCQ and at least one involving z pack too. That trial being run by Minnesota University involves Canada and US with over 1000 patients who can volunteer via web site anywhere in the USA is supposed to yield results by end of May. it also involves placebo use. Hang on to your hats you double blind boys!

Reply

 **JP Leonard** says:
18 April, 2020 at 4:03 am

I'd still rather see a trial of 100 patients with one group on HCQ+Zpack and the other on HCQ + Zinc. If HCQ's virtue is mostly that it is a zinc ionophore and you don't control for zinc deficiency in subjects, it's going to be garbage – in garbage out, even if you do 40,000 subjects like Oxford is planning.

Reply



JP Leonard says:
18 April, 2020 at 4:10 am

Also trials on patients with mild symptoms are going to give weak data because most people with mild cases recover anyway. The real test and therapy needed is on severe cases and there it's not ethical to placebo. But you can still test two treatments to find out which is better

Reply



theasdgamer says:
18 April, 2020 at 4:09 pm

Ok, Derek, you got me motivated. 😊

I'll talk to my daughter about researching HCQ/zinc ourselves. She has access to data and is a physician and has published several papers (about ten, I think).

Reply



JP Leonard says:
19 April, 2020 at 12:37 am

A Hypothesis and Design Proposal about HCQ Trials
HCQ is said to have two properties relating to SARS-Cov-2.
1. It's well established to be a zinc transporter, and zinc is well established to be essential to a healthy immune system.
2. HCQ may have other properties (such as involving IL-6).
Any HCQ trial should be set up to distinguish which of these two effects is operating, if either.

The literature shows that Zinc deficiency is related to all the risk categories for death from Covid-19, as I have listed here <https://medium.com/@leonardjpmail/think-zinc-9c114fde64bf>
Accordingly, the design proposal for HCQ trials is:
The following patient data needs to be recorded before starting the trial.
– Serum Zinc level
– Risk conditions (obesity, old age, male gender, hypertension, heart condition, cancer, chronic respiratory condition, diabetes)

Hypothesis: the most significant results from HCQ involve its mobilization of free serum zinc.
Predictions:
1. patients with risk conditions and extreme zinc deficiency will not be helped by HCQ without zinc.
2. patients without multiple risk conditions and with moderate zinc deficiency may be helped.
3. patients with no risk conditions and normal zinc will not be helped by HCQ.
Rationale:
Group 1 has not enough zinc for HCQ to work. Group 3 will recover without HCQ anyway so no positive effect will be shown. For group 2, HCQ will maximize the immunological effects of available zinc and thus improve their condition.

If this is true, the results from even a large HCQ trial will be unclear if serum zinc levels of the subjects are not recorded at the outset.

Even if there is a slight positive effect in the data from helping the middle group, borderline cases and complications will muddy the results. If the risky chronic conditions and zinc levels are not recorded or controlled for, the trial will most likely be a waste of effort and scarce HCQ.

Reply



drsnowboard says:
19 April, 2020 at 3:00 am

where is the zinc only arm? If zinc deficiency is such a marker, surely all deficient patients outcomes will improve, regardless of HCQ addition?

Reply



JP Leonard says:
19 April, 2020 at 9:09 am

DrSnowBoard, That is a good question. Yes supplementation is recommended for zinc deficiency. There are a couple of reasons why the zinc arm probably wouldn't have the kind of dramatic effect that Zelenko and Cardillo claim for the combination.
The problem with Zinc is low bio availability. The cell membrane repels positively charged zinc ions. They need to bind to a transporter molecule to get inside the cell.
Zinc supplementation is recommended for chronic conditions but for an acute challenge like coronavirus the dosage is not likely to be enough without HcQ which multiplies the bio availability by a factor of 5 or 10.
It is true that zinc lozenges have been shown to shorten and reduce cold symptoms especially if given early on.
I also couldn't find much research on why chronic conditions and Covid risk factors are characterized by zinc deficiency. Which is cause and effect? Certainly zinc deficiency doesn't cause aging or being male. We probably lose the ability to absorb sufficient zinc as we age, and as males we just need more zinc.
With other conditions I don't know if they are the cause or the symptom of zinc deficiency. The condition and the low zinc might both be caused by aging and then low zinc aggravates the condition? Health is when everything is running smoothly. Problems tend to reinforce each other. So as the body weakens its ability to absorb necessary nutrients could also suffer.
You are right that technically there should be a zinc only arm, but it might not be ethical for serious cases. Yes it would be wise to have it for mild cases, we could expect some mitigation of symptoms like with cold eeze .

Reply



JP Leonard says:
19 April, 2020 at 9:11 am

A lot of this is documented here
<https://medium.com/@leonardjpmail/think-zinc-9c114fde64bf>

Reply

Andy II says:

 20 April, 2020 at 8:27 am

“Covid-19 roundup: Following hydroxychloroquine donation, Novartis plans a pivotal trial to settle a big debate; Why did Gilead expand remdesivir study again?” <https://endpts.com/covid-19-roundup-following-hydroxychloroquine-donation-novartis-to-launch-pivotal-trial/>

So why Novartis is going to do a RCT of HCQ now as we all are expecting the preliminary readout now?

Reply

 **Bryn Duffy** says:
22 April, 2020 at 7:40 pm

Watch them do the HCQ arm of the study without Zinc and at ridiculously low dosing. You can predict the corrupt acts by the pharmaceutical companies at this point. They do not hide it.

Reply

 **Chris Swain** says:
21 April, 2020 at 9:28 am

<https://www.medrxiv.org/content/10.1101/2020.04.16.20065920v1.full.pdf>


In this study, we found no evidence that use of hydroxychloroquine, either with or without azithromycin, reduced the risk of mechanical ventilation in patients hospitalized with Covid-19. An association of increased overall mortality was identified in patients treated with hydroxychloroquine alone.

Reply

 **Josh Reynolds** says:
21 April, 2020 at 2:45 pm

Hmmm. Obviously NO Zinc. No treatment protocol described (# daily mg's,, # days). No mention of possible differences in comorbidities (or did I miss it?). No testing of those taking ibuprofen? Hmmm???

Reply

 **JP Leonard** says:
21 April, 2020 at 3:47 pm

You guys finally convinced me we got to have clinical trials of HCQ+Zinc. So you're cordially invited to sign my petition for a controlled double-blind study of the HCQ+Zinc treatment here <https://tinyurl.com/Stop-Covid-and-Quarantine> (the severe case treatment, not just a long-term prophylactic study that will be in after the planet craters.)


I still don't get why nobody has done a trial yet, since the first reports of cured patients came out a month ago. When this pandemic is costing thousands of deaths a day and maybe \$1 trillion a week, go figure can we afford a trial?

Reply

 **medchemist** says:
29 April, 2020 at 9:37 am

When AIDS could not be treated with important antivirals such as saquinavir (1995) the zinc hype as 'antiviral' was also popular:
– patients who received supplementation with zinc salts had significantly higher zinc levels than those who received placebo
– there was no evidence that zinc supplements lowered viral load
– there was no evidence that taking zinc supplements reduced the risk of death
Fortunately, smart medicinal chemists created very useful HIV antivirals such as hiv-protease inhibitors, CCR5 antagonists, reverse transcriptase inhibitors and integrase inhibitors. It is a shame that the first inventors of the breakthrough drug saquinavir never got a Nobel prize. So you better keep your medicinal chemists alive and kicking, because they can make real antivirals also against SARS-Cov2 as validated targets are well known!!

Reply

 **sgcox** says:
21 April, 2020 at 5:50 pm

Looks like the first genuine analysis of HCQ in COVID-19 is out. It is really bad. Many other trials are planned or underway. May result in many unnecessary deaths. Is it even ethical to continue now ? <https://edition.cnn.com/2020/04/21/health/hydroxychloroquine-veterans-study/index.html>

Reply

 **loupgarous** says:
21 April, 2020 at 8:35 pm

sgcox:

" Looks like the first genuine analysis of HCQ in COVID-19 is out. It is really bad. Many other trials are planned or underway. May result in many unnecessary deaths. Is it even ethical to continue now ?


Reading about this in the popular press – especially a politically-active news agency such as CNN – isn't helpful. They forgot to mention this is an un-peer reviewed preprint of still another retrospective study. Until peer reviewers look at the paper and sign off on the authors' methodology, it's not proven.

Why's that matter? Quoting from the bold-faced warning over the article's abstract:

This article is a preprint and has not been certified by peer review... It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice.

So, let’s at least hear from the peer reviewers before using that article to determine whether it’s time to shut down clinical trials on HCQ. Ideally, we’d at least wait to hear from WHO’s SOLIDARITY study, which ought to have larger numbers of patients on each treatment arm, and not rush to shut down clinical trials based on retrospective analysis.


Reply



JP Leonard says:
22 April, 2020 at 1:59 am

Anybody have an idea what a small clinical trial, let’s say 100 people, might cost? For instance this model. Also does it look valid?
at <https://tinyurl.com/Shut-down-Virus-Not-People>
“Here I propose a fast-track test model for a double-blind controlled test, based on HCQ as the control and HCQ+zinc as the test. All patients to get zinc either in the first or second phase, HCQ in both.
Patients are given HCQ plus zinc or placebo for 5 days. Evaluation after 5 days. Continue treatment another 5 days, switching placebo and zinc between the two groups. Evaluation after 10 days. Compare results to see in which phase patients improved more, with zinc or placebo.
Researchers already obtain controlled results comparing zinc vs. placebo after the first 5 days. The second period ensures that no patient is disadvantaged by getting placebo only, which is more ethical and makes it easier to recruit subjects.”
You can also sign a petition for an HCQ+Zinc clinical trial.
<https://tinyurl.com/Petition-HCQ-Zinc-Trial>


Reply



Josh says:
22 April, 2020 at 2:35 pm

I used to run an online clinical trial company where we’d get IRB approval (RCT), recruit over the web, then after inclusion/exclusion criteria were met we’d conduct cognitive and mood test weekly. Not sure that’s the way to go here BUT I do have friend who has a CRO which recruits MDs. It would be a much cheaper way to go. I’ll ask him.

Reply



blogreader01 says:
22 April, 2020 at 1:59 pm

And now for a recent, one-person/one-dose report regarding ivermectine:

For the last couple of weeks I had been experiencing chronic pain in my lower gut. Ditto for a low-grade headache. Ditto for a general feeling of malaise. I’m a not-young person (i.e., in the Tom-Hanks-ish age group). However, as my general health had been so good for so many years, said negative and very atypical developments were worrisome.

Do I (I wondered) have a slow-developing/soon-to-go-rampant case of the Wuhan flu?


I already had some “vet-use-only” ivermectine on hand so I self treated myself one recent evening with a standard dose. Headache and gut pain were totally gone by the next morning and they haven’t returned. I’m feeling good again. Zero side effects.

Conclusion: Ivermectine is good stuff.

(BTW, the negative reactions observed in humans who are treated with ivermectin usually aren’t, as I recall, reactions to the drug, per se, so much as a reaction to, like, having a bunch of dead worms, i.e., worms killed by the treatment, materialize in the patient’s system.)

<https://www.nbcmiami.com/news/local/local-doctor-tries-new-coronavirus-drug-treatment/2219465/>


Reply



Diego S says:
24 April, 2020 at 9:51 pm

The Brazilian trial has now been published on JAMA
Network: <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2765270>

Reply



M J H says:
25 April, 2020 at 8:12 am

If the drug has been used safely for different uses for years. Now, test subjects are dying at a high rate. Accident? I don’t think so. Governments are pushing this vaccine agenda when we still have no vaccine for the common cold virus.

Did the VA give mega high doses of the drug to ensure a lethal outcome or were their testing methodologies sound?

Reply



D. Wyman says:
29 April, 2020 at 3:35 am

Your question does not seemed based on reality. The idea that the veterans administration doctors conspired to kill COVID-19 patients is hard to swallow.


Reply



loupgarous says:
25 April, 2020 at 2:04 pm

Fierce Pharma: “FDA warns that hyped COVID-19 drug hydroxychloroquine is too risky outside the hospital”, by Eric Sagonowsky | Apr 24, 2020 10:54am

Reply



OC says:
29 April, 2020 at 8:52 am

Funny none of the regular HCQ debunkers have written about the study linked to below undertaken by a telemedicine provider in Brazil.


Material reduction in rate of hospitalisation, particularly in the cohort treated early.

Note the control group was less sick on basically every measure but still had a far higher rate of hospitalisation.

I acknowledge the study isn't perfect but it is the closest I've seen to a randomised clinical trial of HCQ + Azithromycin in the early stage of the disease. I.e. precisely what the HCQ proponents are arguing is the use case for this drug.

<https://www.google.com/url?sa=t&source=web&rct=j&url=https://static.poder360.com.br/2020/04/2020.04.15-journal-manuscript-final.pdf&ved=2ahUKEwjQ1PCE1o3pAhU-yDgGHQleDtSQtFjABegQIAhAB&usg=AOvVaw2yh-XSHhbLI6RtuGVLktcm>


Reply



chiz says:
29 April, 2020 at 9:27 am

So ... they assumed that the patients had COVID19 but didn't test for this, and included anybody with flu-like symptoms, even though it's nearly winter? Did I get that right?

Reply



OC says:
29 April, 2020 at 11:08 pm

Their justification:

"Such data emphasize that initiation of treatment cannot depend on laboratory tests alone, given the high rate of false negatives and the delay in obtaining the result. Swab PCR results can take days until diagnosis, which can be crucial for clinical evolution of the infected patient."

By the way Australia has so far had the slowest flu season on record (by an enormous distance) due to social distancing measures. I'd be pretty confident COVID-19 is BY FAR the most common cause of pneumonia symptoms in Brazil.


In any case a significant subset of patients underwent CT Scans subsequent to the initial telemedicine consult. Values are recorded on Pg 23 Table 2. 70% of treatment arm had lung CT images suggestive of COVID-19 vs. only 40% in the control.

So if anything this methodological flaw MASSIVELY understates efficacy of the active arm.

If this data is anywhere near right 1 avoided hospitalisation (given double digit mortality for hospitalised patients) for every 28 patients treated is a MASSIVE differential that outweighs by orders of magnitude the increase in the truly miniscule risk of QT prolongation leading to a fatal arrhythmia.

By the way I absolutely detest Trump. But what I detest more is the idea that only a gold standard randomised clinical trial can give any useful information for clinical treatment during a pandemic in the face of huge amounts of retrospective data and anecdotal evidence.

Reply



Jorge Galindo-Villegas says:
1 May, 2020 at 9:05 am

Nowadays, more than 80 different "recycled drugs" have been proposed, why do we still keep talking on HCQ? More important should be finding suitable fast and reliable animal models to test them all. Have you ever thought about the zebrafish?

<https://www.frontiersin.org/articles/10.3389/fphar.2020.00680/full>

Reply



JC says:
3 May, 2020 at 5:28 pm

- (1) Discuss therapies in relation with the disease stage
- (2) Anything goes if the therapy is efficient, available (ease to produce and distribute), is as easy as possible to administrate (the lower the stage, the easiest it should be) and has minimal toxicity (the higher the stage, the harder it gets for all therapies)
- (3) If you do not kill the patients, try not to ruin them else it might end up the same.

> 2020-04-16 Hydroxychloroquine and the Coronavirus: Connecting the Dots Through the Biology Knowledge Graph

"Interestingly, azithromycin moved up the list of inhibitors in Table 1B, suggesting a large literature around the interaction between this drug and ARDS proteins."

"The figure comes from Mehra et al and shows three escalating stages of COVID-19 disease progression, with the associated signs, symptoms and potential stage-specific therapies"

<https://pharma.elsevier.com/covid-19/hydroxychloroquine-and-the-coronavirus-connecting-the-dots-through-the-biology-knowledge-graph>

> A (almost real time) compilation of evidence on hydroxychloroquine and azithromycin in treatment of COVID-19 and breaking results from antibody prevalence studies <https://docs.google.com/document/d/1O6ClS-Oz2ZAgJuyDbnlCEGjMvQPEyM-aaXARUomR9Ww/mobilebasic>

> SERMO

<https://www.sermo.com/press-releases/sermo-reports-hydroxychloroquine-usage-expands-globally-plasma-is-perceived-as-more-effective-than-hydroxychloroquine-remdesivir-efficacy-perceptions-on-the-rise/>

Reply



Charles D. says:

3 May, 2020 at 8:46 pm


I proudly voted for Trump due to his many libertarian founded argument s. I voted for Ron Paul prior to Trump. I was a life long Democrat through Bill Clinton. The Democratic party is a re-vomit of the communist party of the twenties and thirties. I enlisted in the Navy during the Viet Nam War that supposedly fought against communism. We are soundly entrenched in a Civil War, Communist s vs. Patriots.

Trump merely mentioned the HCQ treatment to HELP Americans who he loves. You can be rich, obnoxious, pompous but be an effective and compassionate leader. If you are an American citizen and sick with COVID-19 you have several choices depending on your health history. HCQ is not Trump's treatment, and as other commentator's have said, the Zinc and Zpack are needed. You can die alone at home, you can get a ventilator stuck down your throat because oxygen is being starved in your body, you can try HCQ+, or take some other treatment . In any case if you of poor health it is a crap shoot. Take your pick, in surgery they would say 50/50 or 20/80 percent chance of life.

So you are over 60...so am I. Let's throw dice, read all we can and take our chances. From what I have read on all sides as soon as I would feel the symptoms (not so easily detected when you are old), I'm going for HCQ+. I will refuse a vaccine, I don't take them for the flu, why take them for this virus. If it doesn't work out and you are going down, hopefully you know Jesus Christ intimately and wake up in a far better place. One fact no one mentions. We are all going to die eventually, there is no escape. I am guessing much of the death reports are handsomely tainted with folks going down anyway and COVID-19 kicked them down the road faster. Not necessarily due to COVID-19.

God Bless!

Reply



m00 says:


11 May, 2020 at 2:37 am

Honestly reading Americans posting stuff like this makes me a little sad. What happened to your country? Everything you see is so black and white that you're missing all the detail others see form outside. The rest of the world, including here in UK see Trump for what he is – showboating lousy middle manager which exist in most larger companies, – men that take all the credit for others work and blame everyone else for their failures. Had the man not inherited his billions he'd be exactly that.

Has there ever before been a US president who has lied in public over 18,000 times in 3 years? Of course that is only counting his public statements, each one that can be very easily double checked for accuracy... I mean that is some impressive statistic, no?

America seems to be turning fascist and you guys are so entrenched in your left vs right battles that nobody actually cares. Yes, some things Trump does are in the right direction, – because again things in real life are rarely black and white, or all good or all bad, but overall I think 90% of worlds population, especially in the developed countries see the man as a scam artist, supporter of dictators and denier of science. To borrow a quote from the orange one himself, SAD!

Reply



JC says:

20 May, 2020 at 12:14 pm

@m00

You are right. It is not black and white. But it is not 50/50 either nor it is a uniform distribution of shades of gray. Nowadays (the last 50 years at least) it is more 80% rationalism and 20% empiricism (including their respective shades). The meaning of "Fundamental research" has drifted in the same proportion from "understanding Nature" to "enumerate the natural realm" (and it is why nowadays many PhDs are just high level technicians with very poor critical thinking capabilities).

While I do not like him nor his predecessor, I can only acknowledge that Trump incarnates a need that his opponents (republicans and democrats) are systematically failing to assess and implement: The need for pragmatism more than for consensus.

It is especially true in "modern science" with its techno-mind orientation. Even "fundamental research" today means more counting new facts (being molecules or viruses in this case) like if more facts are going to give more knowledge. What a joke this is.

As we have seen with Climate Change and now with Covid (and previous epidemics – seems we are bad learners), knowledge is drowned in noise and it becomes a science in itself to find decent public information.


Let's name a few

- > <https://www.skepticalscience.com>
- > <https://thebulletin.org>
- > <https://www.mshfd.org>
- > <https://www.medicineuncensored.com>

Maybe it is time to have the same tracker for Health Science

- > <https://climate.law.columbia.edu/Silencing-Science-Tracker>

Reply




Padmesh says:

11 May, 2020 at 5:37 am

In India combination of hydrochloroquine + antibiotic + antiviral + zinc + vitamin C protocol being adopted in most of the hospitals and the death rate is much less when compared to Europe and US. Treatment to be started at an early stage of the viral infection. Patients with co morbidity need to be treated differently.

Reply



Yeto says:

14 May, 2020 at 3:21 pm

Thank you for stressing that. Everything is politicized in the US, which is so sad.

Reply



Tony Mungavin says:

11 May, 2020 at 7:06 am

Both Hong Kong and Singapore require all Covid-19 positive patients to stay in Hospital. Given their low level of fatalities, it would be good to find a report on what medications these patients are given, when and in what doses. (I can only find some reports on some trials that have been conducted).

Reply

 **Tony Mungavin** says:
11 May, 2020 at 7:15 am

Sorry. I meant to post:

Current crude fatality rates as at 11 May:
India – 3.27% (2215 / 67700)
Hong Kong – 0.382% (4 / 1048)
Singapore – 0.089% (20 / 22460)