IN THE PIPELINE

Derek Lowe's commentary on drug discovery and the pharma industry. An editorially independent blog from the publishers of *Science Translational Medicine*. All content is Derek's own, and he does not in any way speak for his employer.

By Derek Lowe

CLINICAL TRIALS

More on Hydroxychloroquine/Azithromycin. And On Dr. Raoult.

By Derek Lowe | 29 March, 2020

Dr. Didier Raoult of Marseilles and his co-workers have published **another preprint** on clinical results with the chloroquine/azithromycin combination that their earlier work has made famous. And I still don't know what to think of it.

This is going to be a long post on the whole issue, so if you don't feel like reading the whole thing, here's the summary: these new results are still not from randomized patients and still do not have any sort of control group for comparison. The sample is larger, but it's still not possible to judge what's going on. And on further reading, I have doubts about Dr. Raoult's general approach to science and doubts about Dr. Raoult himself. Despite this second publication, I am actually less hopeful than I was before. Now the details.

I. This Latest Study

The **new manuscript** calls this "an observational study", but I don't see how that's right – this is interventional, and that's the whole point. In it, the Marseilles team reports treatment of 80 patients. Median age was 52 years (range 20 to 86), nearly 1:1 male/female. Six of the patients were from the earlier study reported by the group, here with longer follow-up. The patients were grouped into those with upper respiratory symptom and those with lower (54% of them in that category), and comorbidities were noted (46 of the patients had at least one known risk factor) as well as days between onset of symptoms and hospital admission, and between admission and start of

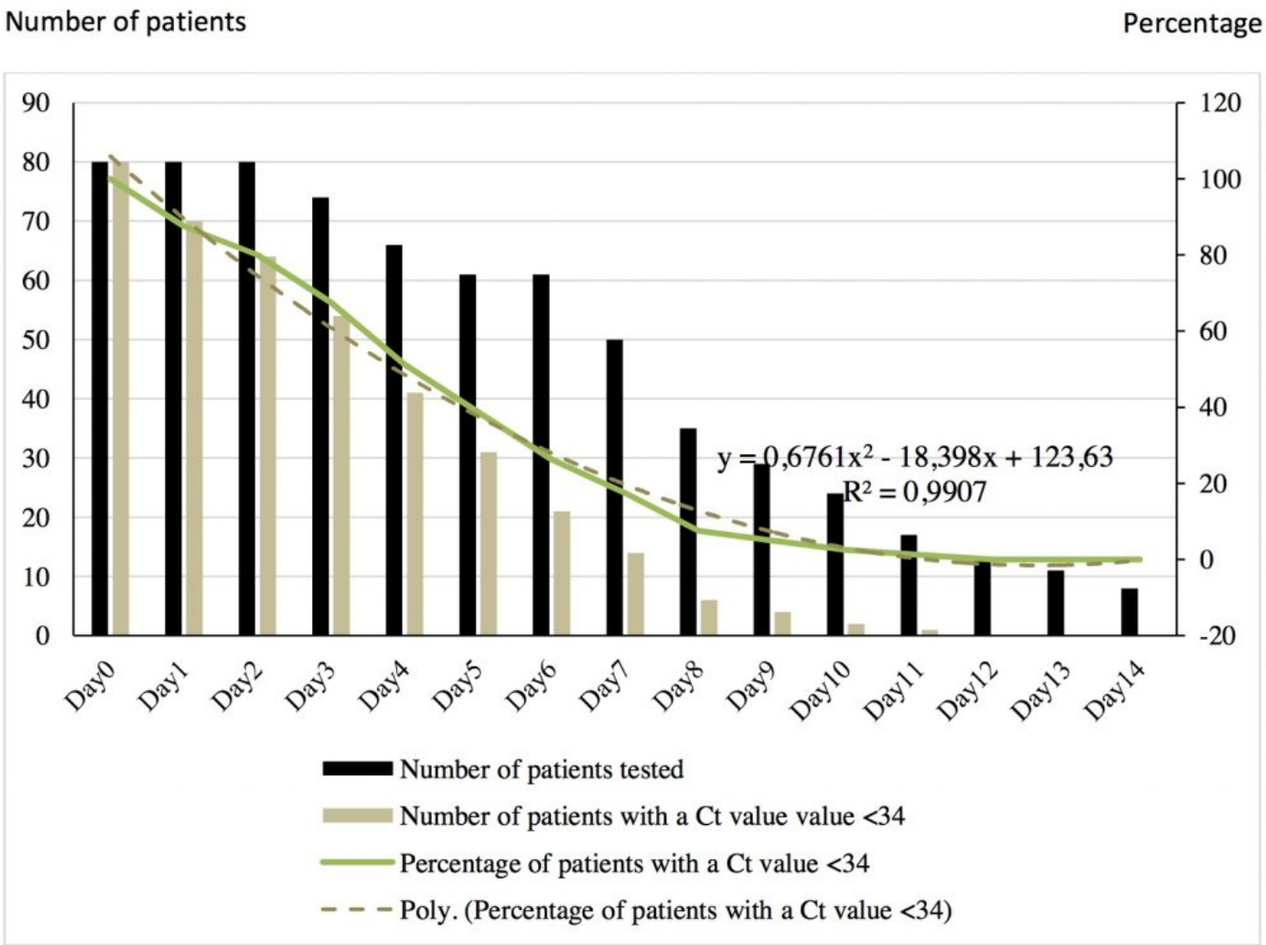
were taken daily (“with some exceptions”) and analyzed for viral RNA via RT-PCR. Cultures, meanwhile “were attempted in a random selection of patients”.

Patients received hydroxychloroquine (200mg t.i.d for ten days) and azithromycin (500mg on the first day, 200mg q.d. for the next four days). The patients with pneumonia and bad overall “national early warning scores” (22%) got additional antibiotic (ceftriaxone, dose and schedule not specified). Patients had an ECG before treatment and two days after starting treatment, looking for any signs of QT interval prolongation. Treatment was discontinued (or not started at all) depending on ECG results, and any other drugs that are associated with QT prolongation were discontinued. The paper says that symptomatic treatments, including oxygen, were added as needed.

The end points of this treatment were messy, probably unavoidably so:

> *Criteria for discharge changed over the course of the study. Initially, patients with two successive negative nasopharyngeal samples resulting from PCR assay (CT value ≥35) were discharged. From 18 March, patients with a single nasopharyngeal sample with a PCR CT value ≥34 were discharged to their homes or transferred to other units for continuing treatment, Ultimately, because of a crucial need to admit new, untreated inpatients, inpatients already receiving treatment with a PCR CT value <34, with good clinical outcome and good adherence to treatment were also discharged.*

OK, that sets the stage. We’ll come back to the discharge numbers in a bit. The study’s results include all the patients who got the HCQ/AZ treatment for at least three days and were followed up for at least six. A lot of the data are included in the following chart



(70 patients still positive). Now, according to the paper's Table 2, 49 patients started therapy on Day 0, and 26 on Day 1. So this apparently means that 10 out of the 49 got to a completely negative nasal swab reading overnight? That seems hard to believe, unless they were already close to the cutoff, but here's a big problem with the preprint: we do not have individual patient data. The previous smaller study from the Marseilles group included a table of such data (which had some inconsistencies, mind you) but it is not present here, and I can only hope that it shows up in the final published version. *Update: Lu Chen has followed the numbers all the way down and **finds more inconsistencies**.*

To see even more why that's needed, let's go out to Day 2. By this point, they're still testing all 80 patients (the black bar) and now, what, about 64 of them are still positive (tan bar)? So of the 39 patients that started on Day 0 and the 26 that started on Day 1, only 6 more of them improved enough on the nasal swab to be called negative for viral RNA. In other words, 20% of the patients treated went clean during the first 24 hours, but less than 10% did over the second 24. The "number of patients" bars look pretty reasonable, but that's before you look at who started treatment and on which day. And wouldn't it be useful to see the progress of the individual patients day by day in that PCR test? How the most heavily viral-loaded ones did compared to the lighter ones, how the asymptomatic carriers did compared to the rest? We can't. All we have are the aggregate numbers.

And we're missing a very important aggregate number indeed: a control group. How would a comparable group of patients have performed in these RNA tests for contagiousness under another standard of care? Even with or without azithromycin, if you can't stand the thought of not giving them hydroxychloroquine? We don't know. Without matched controls, and without being able to look at individual patient data, we just don't know how good this treatment was or frankly if it was any good at all. We may be seeing a notable effect size in what is still a small trial, or we may be seeing something that's not that remarkable or the result of a poorly controlled protocol. We don't know. I understand the need for speed, and I'm glad that the Marseilles group is conducting studies and releasing them as preprints. *But this work does not help us anywhere as much as it should*.

Now, many of the patients in this study were, in fact discharged, but not all (65 of the 80). Three patients were transferred to ICU during the study – two improved and came back to the main ward, and one was still in ICU at time of publication. One elderly patient (86) died before going to the ICU – that one is the only age associated with a specific outcome in the whole paper, consistent with the lack of individual data. How do these figures for disease progression compare with other treatments for similar patients? Who knows? This is an interesting question when you consider **this 2016 letter** from Dr. Raoult in the journal Clinical Infectious Disease, pointing out the need for strict negative controls when evaluating viral etiology. However, he is at least true to his view from **this interview**, where he mentions that he does not believe that randomized trials are useful in infectious disease work.

II. Previous Work

That takes us to Dr. Raoul's other published work. For extended comment on this I refer the reader to **this post** by Leonid Schneider at For Better Science. To summarize, there are a number of papers published from his lab over the years that have some of the better-known publication sins: duplication of photomicrographs, photoshopped blots. One of these in 2006 was egregious enough that Raoult and several of his co-authors were banned from publishing in any ASM (American Society for Microbiology) journals for a year. He was angry enough about this that he has almost never published in an ASM journal since the incident.

one shouldn't be surprised that there's some junk in there. I don't think he rises to the level of some serial fraudster. But neither does this stuff build confidence.

It's also interesting to take a look at his earlier reactions to this very epidemic. In **this YouTube video** from January 21st, he takes a rather dismissive tone (translation from **a transcript here**, in a long article (in French) at Les Crises that serves as an excellent source of background on Dr. Raoult in general):

> *Q: Prof. Raoult, a coronavirus epidemic is making the news in China. Do we have something to fear?*
> *A: You know, it's a crazy world. What's going on, the fact that people have died of coronavirus in China, you know, I don't feel very concerned. It's true that the world has gone completely mad: if something happens where 3 Chinese people die and it makes the world news, WHO gets involved, it goes on the radio, on television. If there is a bus crash in Peru we say "road accidents are killing more and more people". All this is crazy. That is, there is no longer any clarity .Whenever there is a disease in the world we wonder if we are going to have it happen here in France. It just becomes totally delusional. . .I don't know, people don't have anything to do, so they go to China to find something to be afraid of. . .well, it's just not serious.*

To be sure, he has changed his mind on the subject, as have many others. But that should relieve him of any duties as a prophet people might want to assign. You say, that's from late January, and we shouldn't hold people to what they had to say back then? Well, here are some of his statements in an **interview with an Italian magazine** on February 24th:

> *You know, there are more deaths from scooter accidents in Italy than from the coronavirus. This psychosis and runaway media come from a sensitivity of the human race to the risk of extinction. Anthropologically, there is always a "Reason We Are All Going To Die" . . .It turns out that epidemics are part of the modern world, so that necessarily causes concern. . .*
> *De facto, if we look at the numbers, Monday February 24, 2020, there were only 500 new coronavirus cases in the world – these figures do not justify this massive panic. Every year there are tens of millions of deaths in the world due to viral respiratory infections; there will be a few hundred more.*
> *If you look at the new cases, the rate of new contamination is less than 1% right now; it's very low and it suggests that the epidemic is coming to an end. . .*

No, not a prophet. But at any rate, these extracts do seem to get across something of the man's personality.

III. Dr. Raoult Himself

As to that personality, I don't know what to think of Dr. Raoult himself, either. His public statements about his recent work have not lacked for confidence – over and over, he has said that he believes that he has a cure, that there is no reason for any physician not to start prescribing his combination immediately and that it would be tantamount to malpractice to do otherwise.

But he is a man of strong opinions. *Update: see **this profile** in Science from 2016 for more of these.* Unfortunately, he has also seen fit to share them in a **quickly written book**, *Épidémies: Vrais Dangers et Fausse Alerts* (Epidemics: Real Dangers and False Alarms), which comes complete with a large

his decision-making and “entirely dominated” by him in both the administrative and scientific senses.

Raoult has, in fact, been the subject of a number of accusations of harassment over the years. The For Better Science post linked to above has more details, and if you read French or want to use Google Translate you can see quite a few of them **here**. There’s a lot of “*Who told you you could speak up*” and “*You’re not paid to think*” browbeating, complaints of shouting matches and arbitrary dismissals, etc., which do seem to fit what one gets of the man’s personality in his interviews. *Update: Leonid Schneider has heard from someone who worked in Raoult’s institute, and who **vividly describes** the atmosphere there.* Complaints of sexual harassment also boiled over in 2017 with at least six women involved. Allegations were made that another professor at IHU threatened a foreign graduate student and others with retribution if they came forward against him and made statements like “*Don’t you know how to behave with white people?*” after making sexual advances. Prof Raoult was accused of trying to minimize the affair in the department and of threatening to fire people who were making accusations. It is **not comfortable reading**. *(Update: cleared up this section and added more details)*.

All in all, I am pretty sure that I don’t care for Didier Raoult very much. And I don’t care for his style of research nor for his ways of expressing himself. Now, it would be a more simple world if assholes were always wrong about things, and I am not yet prepared to say that Dr. Raoult is wrong about hydroxychloroquine and azithromycin. But neither does he seem to be the sort of person who is always a reliable source, either. I do not take pleasure in this. But I am less hopeful about this work than I was when I first read about it, and I can only wonder what direction those hopes will take in the weeks to come.

*Update: **more from David Gorski** at Science-Based Medicine. The words “nothingburger” and “useless” make an appearance in his description of the latest paper.*

*Update: **more at Slate**, who refer to Raoult as “Trumpian”, which I have to say is an adjective that I had considered as well.*

241 comments on “More on Hydroxychloroquine/Azithromycin. And On Dr. Raoult.”

Julien says:
29 March, 2020 at 11:35 pm

As of tonight, they’re stating 1003 patients treated with HC +AZ and only one sigle death:
https://www.mediterranee-infection.com/covid-19/
Not sure that makes a lot of sense…

Reply

FF says:
30 March, 2020 at 3:25 am

Hi, this is a genuine question as I’m a lay man and sceptic myself and trying to understand. How do you compare this result (0.1 % death rate) to the overall La Timone hospital results (0.7%) ? Results for other hospitals in Marseille are not available because the municipal computer system

johnnyboy says:
30 March, 2020 at 8:25 am

You can only meaningfully compare death rates if the populations evaluated are similar. To be confident you have similar populations, you need a reasonable sample size (80 patients in the trial is very small), and you need systematic criteria measured in both populations to show that they are similar (age, sex, severity of disease, concomitant diseases/risk factors, etc…). So you can't just take those two numbers without any of this additional info and say that the difference is real.

Reply

David says:
30 March, 2020 at 1:03 pm

FF, there are 3 main tools for ensuring that the comparison is valid:
1) randomization – this requires that both subjects and controls are drawn from the same cohort and provides a good chance (if the sample size is large enough) that baseline factors are well-balanced and don't provide a bias.
2) blinding – this removes subjectivity from the assessments (mostly), and prevents docs from treating the active group differently than the control group.
3) adequate sample size – this prevents random chance from distributing enough good responders into the active treatment group to produce a false-positive conclusion. To use your values, to detect with 95% confidence a difference between 0.7% and 0.1% (and be 80% sure that your study won't miss a true finding in the other direction), requires about 1,700 subjects in trial. This shows that such studies shouldn't be sized on death alone, but rather on a "surrogate" outcome that happens more often, such as not requiring ventilation or not requiring ICU care. The tradeoff is that for the more common outcomes (which lower sample size requirement) the outcome measure is less clearly defined and the results potentially harder to interpret.

Reply

Louis Reed says:
30 March, 2020 at 4:28 pm

… which is why the airline industry counts near misses instead of crashes.

Reply

Jean-Francois says:
31 March, 2020 at 1:04 pm

What about a phase 1 trial before you conduct a randomized trial? Remember that penicillin was used during WWII without randomized trials. The first randomized trial was done at the same time with streptomycin. Different risk benefit ratios.

Reply

Some idiot says:
31 March, 2020 at 2:25 pm

healthy volunteers. Starting with tiny doses, and working up to what a “real” dose would be, looking for side effects.

However, the two drugs that are becoming discussed here have already been on the market, so therefore the questions of side effects and distribution within the body are already answered. So, Phase 1 is not necessary, and can be skipped (unless there is a totally different formulation and/or route of administration, in which you will need to see the differences between this and the “known” formulation; not the case here).

Rafael says:
30 March, 2020 at 2:09 pm

Its very simple how you can go from 0.7% to 0.1% in the drug treated group. you get 0.7% rate overall at the hospital. If you only focus on the group that has the lowest yield of virus at time of drug treatment, and then remove 90% of the individuals who die after drug treatment from the study, then you can easily get a 0.1% rate.

How do I know that this is the strategy? look at his first paper on this and you can see what he does.

Reply

Julien G. says:
2 April, 2020 at 4:59 am

That’s the problem : even if it is confirmed that the treatment regimen has a positive effect, it doesn’t retroactively change the fact that the two first studies from the IHU are bad science and that we can’t conclude anything from them.
I’d say it’s even sadder if it is eventually revealed to be effective: had the data not been treated correctly the first time around, other heatlh professionals around the world would have been convinced earlier to use this treatment. Instead we’re stuck in a controversy, waiting for confirmations.

Reply

Julien G. says:
2 April, 2020 at 5:01 am

*had the data been treated correctly

Reply

David Woodford says:
9 April, 2020 at 10:35 pm

If patient breathes better with good O2 sat and good pulse rate, it works. A control group? Who gets to die? Unethical to have negative control. Are you an MD? Neither am I, just a retired hospital pharmacist, former PhD researcher and college professor. Keep you eye on the ball-patient improvement is the goal in desperate situations

Reply

What do you know right? Just kidding, thank you. I agree. What people are saying is that there should be RCTs first, but that would be at the expense of dying patients and family members. They say if it works why change it! If it fails, we do as we humans always have, move on to the next solution. Also, I think doctors don't want deaths or complications in their stats right now. These meds have been pre-existing in the market as an approved medicine where tests have already been done.

Reply

charlie says:
3 April, 2020 at 1:58 pm

Now has treated 1800, with 5 deaths after "3 days of treatment"

Reply

EricM says:
4 April, 2020 at 5:07 am

It's not « 3 days of treatement » but « >3 days of treatement » wich means « more than 3 days of treatement »

Reply

_Jim says:
30 March, 2020 at 12:04 am

Read his Twitter update; he cites the Hippocratic Oath and could not in good conscience implement a blind "control group" that would look to have a 'grizzly' end (not unlike the Tuskegee Experiment's "control group").

Reply

Athaic says:
30 March, 2020 at 3:24 am

> *could not in good conscience implement a blind "control group"*

Nope. That's circular reasoning. "My design works, ergo I don't have to show it works".
Also, forget the blind part. Even a non-blinded control group, where the viral load would have been measured in parallel, would have been better than this… "nothing".
And yes, a proper study takes time, but Raoult has been taking time to make studies. If he has done a proper one, we wouldn't be still arguing about the results.

With the Tuskegee Experiment, the physicians/scientists in charge wanted to look like what untreated syphilis looked like.
They already know that antibiotics worked on it, and that people didn't spontaneously beat the infection on their own.

With Covid19, we already know that 95-99% of people will get through it.
And this, with the current accepted regimen. We are not leaving people in the gutter.

one.
Raoult is saying he has a better parachute, and that this parachute is better at slowing down people using it. If that is true, indeed, it will be safer for people to use it.
Unfortunately, he keep forgetting to make a meaningful test where a standard parachute and his own design are tested side by side. So far, either he has control people jumping from a different height, or he forget to start his timer.

Reply

_Jim says:
30 March, 2020 at 3:31 am

I see, Athaic, so you would rather have the 'study' numbers rather than see a cured person. I will take it then you are not a clinician, perhaps work instead in an analysis lab? This is what caused human suffering in the Tuskegee Experiment, which you seem to have no qualms seeing repeated. Human compassion seems absent from the decision making process here.

Reply

Athaic says:
30 March, 2020 at 4:21 am

Nope.
Learn to read.

Reply

Nick says:
30 March, 2020 at 2:35 pm

You don't understand the subject under discussion here.

Either educate yourself or leave it to others.

Reply

loupgarous says:
31 March, 2020 at 12:31 am

Athaic said

> *"With Covid19, we already know that 95-99% of people will get through it. And this, with the current accepted regimen. We are not leaving people in the gutter.*
> *In his latest study, he got 1 dead out of 80 treated people. We are roughly in the 99% "went through it".*

So Raoult wouldn't be withholding the known standard of care, as the Tuskeegee Experimenters did – if he performed a study according to accepted protocols, the very worst that would have happened is what would have happened if the patients in the control group had the very best care known to work, **with drugs that have been proven by clinical trial to be safe for use in the intended patient population**.

Ali says:
31 March, 2020 at 3:50 am

You can't use patients as guinea pigs to test safety. We don't have a good enough understanding of the risk factors for morbidity/ mortality. The epidemiological data isn't there to say that it would be okay to withhold treatment from anyone.

Biochemist says:
31 March, 2020 at 12:11 pm

Ali, I don't think you're comprehending what was said. The problem here is that you are starting from the assumption that HQ works, thus dosing with placebo would be "withholding treatment". Nobody knows if HQ works. So not dosing with it is not "withholding treatment". Everybody in the study would get standard of care.

Chris says:
31 March, 2020 at 7:02 pm

"Well, we do already have parachutes. We are not proposing to kick people out of a plane without one."
This is a callous and outright inhuman claim. I'm risk group member and there is absolutely nothing on the market of Coronaviris cures I would even remotely trust my life with the way I trust an industry standard parachute.

So – no. By demanding an essentially untreated control group, you are definitely suggesting to kick folks out of a plane without one. That is one step away from Mengele-style making them sick on purpose in the first place.

Reply

Lappan says:
31 March, 2020 at 9:20 pm

Nobody is talking about withholding care. It's about testing whether this proposed therapy adds to the existing care. Take a sizeable group of patients and divide them in two. One half is treated exactly as all other patients would be, that is with the best existing therapies. The other half has the new therapy added. And then you study the outcome: does the new therapy improve outcomes? is the effect significantly beyond a chance result? are any serious problems revealed? and so on. There are many examples of therapies that upon proper study proved ineffective or even harmful.

_Jim says:
30 March, 2020 at 3:38 am

I do not think you argue in good faith, nor do I think you are a clinician (seeing actual people as a doctor), and have no compassion. We are going to part on these terms then; you go your ways, devoid of humanity (and with some 'ax' to grind in this present matter) and I will go mine. May God grant you grace at some point that you can show compassion to another living, breathing human being.

Leave your imaginary friend out of this.

Reply

Jason says:
31 March, 2020 at 7:06 am

Stop acting like an insufferable dick.

David says:
1 April, 2020 at 1:56 pm

With mistaken attitudes like this, there would be no modern medicine, only folk cures based on hearsay. Double blind controlled trial design represents one of the major achievements of medicine that has propelled the development of the many treatments for serious diseases currently available.

Reply

Daniel says:
2 April, 2020 at 3:04 pm

Dude, there's a reason why sometimes it's unethical to perform double blind studies. Just like vaccines doesn't have double blind studies so is this.

Derek Lowe says:
2 April, 2020 at 3:18 pm

Vaccines are in fact often tested in double-blinded placebo-controlled trials, though.

kunal says:
30 March, 2020 at 7:38 am

'With Covid19, we already know that 95-99% of people will get through it' but you fail to mention 15 to 16 % would be hospitalized , which is what this study result seeks to avoid

Reply

Athaic says:
30 March, 2020 at 8:25 am

And failed to achieve to demonstrate, yes.

It's annoying. Reducing the length of time people are infectious, regardless of their own outcome, or reducing the severeness of the infection, are both perfectly acceptable objectives. A molecule which improves either of these aspects would be a nice asset. There is also some good chance that if you get one effect, you will get the other as well. But to judge the value of Pr Raoult results, I'm missing an important datapoint: what's supposed to happen in a similar group of patients without his treatment?
Same degree of infection, same age range, same population, same medical infrastructure.

An antitumoral is not a cure, it just reduces the cancer cell load.
I can go on. It's all true. But beside the main issue.
All I want to see is objective evidence that the proposed treatments are helping infected people, in one way or another.

Reply

Thierry Deruelle says:
5 April, 2020 at 11:07 am

We all want to see this work though! Or any other molecule that would cut the morbidity rate…

loupgarous says:
5 April, 2020 at 12:10 pm

@Thierry Deruelle who siad on 5 April, 2020 at 11:07 am:

> *"We all want to see this work though! Or any other molecule that would cut the morbidity rate…"*

Which is why we have to be careful we're not exposing desperately ill people to a drug with a list of nasty side effects out of sheer wistful thinking, with no real proof that it will help them.

Only adequately controlled clinical trials provide proof of that. Even with all the good intentions in the world, prescribing chloroquine or hydroxychloroquine without adequate proof of effectiveness isn't necessarily going to help a badly ill patient, and may be doing that patient harm (with bad side-effects including liver, heart and kidney damage, blindness, and other injuries).

T Boyer says:
30 March, 2020 at 9:52 am

Just curious, what is the "current regimen" against Coronavirus in the US?

Something like: "Stay at home, you can take some Tylenol if you happen to have some, but please don't come into the hospital until you have ARDS, and at that point we might put you on a ventilator if we have one free."

If that "regimen" is delivering a 99.9 percent cure rate against coronavirus, then what's all the fuss about?

Reply

tlp says:
30 March, 2020 at 1:12 pm

"we might put you on a ventilator if we have one free" – mostly about this part

Reply

But it isn't "his design". There may not have been any large peer-reviewed trials of it, but there are hundreds upon hundreds of medical histories to observe.

Reply

Heitor Altemani says:
11 April, 2020 at 12:42 pm

Hello, Athaic

I live in Brazil and the government here is hopeful and is investing in the Cloroquine as a possible solution. I still have some doubts too. I am not a doctor, but I can make a few observations.
Your questions and comments were good, but there is a point I believe you misjudged.
You mentioned the test results of the 80 patients had approximately 99% success. I agree, but there is an issue.
Coronavirus has a death rate between 1% and 3% , and even more importantly, in this group test, the median age was 50. Ages varied between 20 and 80. So the expected death rate should be considerably above 1%. For the higher end, 80+, it should be around 15%, for those near 70, 8%, and those near 60, 4%.
Hence, if the drug were a failure, deaths should have been near those numbers, not the 1%. you can only consider that if you include babies and children. That was not the case. Please pay attention to the details. All should, or we might delay treatment and lose lives due to bad judgement.
I know implementing a new treatment in record time is inviable within proper protocol. Yet, one must make choices. At least make sure that your analysis is well done.
If results are insatisfactory move on.

I just worry about one thing. That all countries are dismissing solutions for political and financial reasons. There is a lot of money involved in this. Cloroquine is not expensive. It is no aspirin. I have heard that. But if it works, why not?

All countries should continue testing and seeking new solutions. Just be careful before tossing out a possible medication before moving on to another.

Reply

Brian says:
31 March, 2020 at 1:32 am

There *might* be a case to be made that for many infectious diseases the natural history is well known and therefore your control group is the set of all people ever infected with that agent. That said, there will always be people untreated no matter what the study is and gathering data is not harmful. It feels an awful lot like nonsense to me.

Reply

David Young, MD says:
31 March, 2020 at 11:19 am

unconsciously Dr. Raoult enrolled a group that was somewhat more healthy. Do remember, that most people survive Coronavirus. And not everyone requires hospitalization. Another possibility is that his trial, but chance alone (yes, chance alone) have people do better. One concept in statistical analysis is “how large is your filing cabinet?” Perhaps there are another 100 physicians who have conducted the same sort of Hydroxychloroquine study as Raoult, but with mediocre results, maybe most are entirely negative results. Because they are negative, no one talks about them, no one publishes them and therefore no one hears about them. You are under the assumption, that Raoults’ study is the only study. You say, “one out of one studies show that Hydroxychloroquine is an effective medication. But you don’t know that it might be “one out of 100 studies” show benefit… the other 99 did not.

I think that it would take a study done at more than one institution and involving several hundred patients to really know. I understand that that study is starting.

Having said that, I truly hope that Hydroxychloroquine is a helpful medication to mitigate Covid-19. Certainly, there is a rational that it can.

Reply

Mary says:
31 March, 2020 at 2:05 pm

It’s not even properly published. The first study was published on-line in a journal where one of the authors is the editor in chief,four days after the end of the study; the second on the Institute’s website.

Reply

Tony Warren says:
31 March, 2020 at 3:10 pm

I’m with you on this. The good “docteur en médecine” seems to be floating trial balloons instead of writing up his findings and accepting reasonable criticism of what he has put out so far.

As a Canadian, I sort of see this as typical French arrogance. More likely though it is his ego getting in the way of doing the hard work of doing a solid study. Derek Lowe’s objections all seem reasonable to me.

Reply

loupgarous says:
4 April, 2020 at 2:50 am

Mary:

> *“It’s not even properly published. The first study was published on-line in a journal where one of the authors is the editor in chief,four days after the end of the study; the second on the Institute’s website”*

Which establishes that Raoult’s studies didn’t get even basic peer review – the standard by

benefit from hydroxychloroquine to those already infected with the virus. We'll see, soon enough, if the drug exerts anything stronger than placebo effect – IF studies following standard protocols are done on it.

Reply

Bella says:
22 April, 2020 at 12:43 pm

There are also Drs. right now in NY that claim the treatment is helping patients when given in early stages of the infection.

Hugo J Bohorquez, PhD says:
30 March, 2020 at 2:55 am

We will soon know what kind of people Dr. Raoult is. But that doesn't matter at all. Mainly because there is plenty of in vitro evidence that antimalarial drugs work on coronavirae. And there are even animal tests as well.
But, due to the emergency, Japan, China, South Korea, Belgium, NYC, and US at large will test antimalarial drugs for treating COVID-19. Asking for the usual publication process (as if is a flawless one) that usually takes months, is kind of inconsiderate when many human lives are at risk. We might think of a new peer-review process for this kind of emergencies. And focus on the Science behind the ideas, instead of fatuous fights between pompous personalities. We don't have the time for that.

Reply

Athaic says:
30 March, 2020 at 4:50 am

"Mainly because there is plenty of in vitro evidence that antimalarial drugs work on coronavirae."

That's the main trouble, it's in vitro. I fully agree these studies justify to try CQ or HCQ. But we don't know yet if these drugs do make a difference when given to the patients.
There are also issues of potential toxicity, dose and time to use, etc. but these are secondary issues. They can wait. The main question is, are these drugs useful when given to infected people?

Take bleach. Very good at killing germs. But too caustic to give to people at a dose which would be lethal for germs.
On the opposite end, take colloidal silver. Very good at killing germs. There are topical cream for external applications. But, by some physiological quirk, colloidal silver is useless to treat internal infection, because we cannot take enough of it to reach a germ-lethal concentration in our body. We process and excrete it faster than we accumulate it.
(and if we insist, silver starts to give our skin a blue taint)
It's not specific to silver, but an overall issue with antibiotics.
I coud be wrong, but antivirals – or any drug – may face similar issues.

Reply

But we're not talking about something that hasn't been proven to be safe. The drug has been used for decades. It's even safe for pregnant women to take!

I agree with Hugo J Bohorquez, PhD. My own version not so eloquently put:

We need a Sherman/MacArthur moment from Trump. Allow doctors to give HCQ as a preventative to everyone that it's safe for and who wants it in coronavirus hot spots. See what happens. What the hell do we have to lose?

Reply

Bob Smith says:
31 March, 2020 at 12:44 am

Didn't the FDA already do that?

https://www.fda.gov/media/136534/download

Reply

Jim Y says:
31 March, 2020 at 9:19 am

No. Not as a preventive.

Use hydroxychloraquine to stop the spread by giving it to vast numbers of people in the hotspots. This is only until a vaccine can be completed. Think of it as a vast number of people being in a malaria plagued area. Only in this case it's covid19

Jacek says:
30 March, 2020 at 11:00 pm

The ones that every textbook writes about and rheumatologists have hardly seen? Tell people not to take acetaminophen. Some need liver transplant after all. Or ibuprofen for fear of CKD, hypertension, stomach ulcer and MI. People are dying. Give them a chance. I agree with others. Pompous overgrown ego and, God forbid, letting Trump possibly be right, is the driver for concerns

Reply

Halbax says:
31 March, 2020 at 12:54 am

This has nothing to do with Trump. We know that a certain percentage of patients wo take these medications will die due to side-effects. That lethality is acceptable if the medications are effective, but it is not acceptable if they actually provide no benefit. The only way to know whether it is ethical to administer the medications is to determine whether or not they are effective. These medications are not safe enough to give them to everyone and hope for a good outcome.

Reply

I agree with you.
To me make no sense at this point to judge the person but the treatment, unless there are some interest in preventing to use it because someone else is thinking of making much more money selling another alternative.
So, I´m afraid Derek you´re not being unpartial when writting this article

Reply

Ian Malone says:
30 March, 2020 at 10:21 am

To judge the treatment you do a randomized trial. Otherwise I've got a sugar pill that will work, and if you tell me it doesn't then I just tell you it does and that it would be unethical not to give it to everybody, because it works and don't you want people to get better?

The publication process we can shortcut if needed, but evidence or nothing.

Reply

10Kobo says:
30 March, 2020 at 8:54 am

"And focus on the Science behind the ideas, instead of fatuous fights between pompous personalities. We don't have the time for that."

Succinctly put!

Reply

Charles H. says:
30 March, 2020 at 1:35 pm

The problem is, you need to judge the validity of any presented evidence. Is the report accurate?

That the report doesn't give sufficient data to allow comparison with other reports is also significant, but this guy's lab has previously published faked data. Possibly by accident. How much can we trust what he says?

Personalities *are* significant when you can't watch over his shoulder as he does the experiment.

Reply

Richard Jefferys says:
30 March, 2020 at 9:41 am

There was in vitro evidence that HCQ inhibited HIV
https://www.ncbi.nlm.nih.gov/pubmed/8427717

When a randomized controlled trial was conducted, HCQ treatment led to a statistically significant increase in HIV viral load
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3821003/

France officially approves drug after 78 Of 80 patients recover from COVID-19 within five days — the results disclosed this week by the team at Unité de Recherche sur les Maladies Infectieuses et Tropicales Emergentes lead by Dr. Didier Raoult.

https://www.dailywire.com/news/france-officially-sanctions-drug-after-78-of-80-patients-recover-from-covid-19-within-five-days

Reply

rtah100 says:
30 March, 2020 at 7:23 pm

If it helps, Bergamo hospital – at the epicentre of the Italian outbreak – has tentatively concluded that the terrible ICU demand is a result of immune reaction rather than the virus itself. As a result, they have dropped anti-viral medication and are treating patients with massive doses of CQ and steroids (enough to immuno-suppress them like transplant patients). The hypothetical prophylactic role of CQ in preventing viral entry may also be doing some good but it is seemingly not the primary goal in their new treatment regime. All COVID deaths are also going to autopsy, to validate the hypothesis. This is from my colleague's spouse, who is a consultant at the Bergamo hospital (cardiologist – there is significant kidney and cardiac damage in these cases, as well as lung damage).

Reply

TonyE says:
30 March, 2020 at 7:10 pm

Sometimes there is no time for "academic studies".

As Trump said, "what the hell do you have to lose?"

Just do it, do the analysis later.

Reply

Dion Madsen says:
31 March, 2020 at 1:20 pm

Tony, if you just do it, it will be almost impossible to do a post-hoc analysis of the data to show if it really did work and in the meantime, it may confound trials for other potential treatments. This is the reason to conduct a well designed trial and to do it as quickly as possible.

Reply

leonid schneider says:
30 March, 2020 at 3:17 am

Many thanks Derek. Yes, a 20% cure rate on day 1 is convincing. I think the Vatican must check if this fulfills their miracle guidelines for canonization.
This comment on my site by a former Raoult employee needs to be highlighted. It seems people were fudging data just to remain employed.

and the staff (engineers, technicians, admin managers, researchers) are individually extremely competents. Raoult tried to have the most international research center and he welcomes students from various countries.
But …
because Prof Raoult is authoritarian, technical staff from IHU dedicated to research may fear to say that something is wrong or not working. And it's this behaviour which, for me, could be a serious barrier for research integrity in some of his scientific work.
Bullying people presenting their work during the weekly staff meeting at the Prof Raoult's lab was quite common. People were giving a 5 min –talk about their progress. This time was never a time for discussion between Prof Raoult and the presenters : people were just showing their slides in silence, Raoult was thinking , sometimes talking to one of the other professors. You have just to answer to specific questions and not invited to give any point of view. Some engineers, especially the new ones, were trying to argue with prof Raoult but they didn't last long in the institute.For those who tried, Raoult had also this usual reply : « You are not paid for thinking ».
When Raoult was not in a good mood, this staff meeting were like a roman circus game where people liked to see which one of their colleagues will be destroyed. The ones who did huges efforts to show nice work were preferentially targeted : Once, one of his recent co-author turned into red at the edge of crying while Raoult just denied his work in front of all the medical staff and crudely make fun of his work. I also saw two engineers crying when presenting their results until he suddenly stop their speech because they were not enought reactives to answer his questions.

His behaviour encouraged some of the technical staff of the IHU to hide negative results, or any problems concerning on-going experimentations. People used to discharge their failings to others so problems were never solved. And a simple mistake could become then a real problem. A lot of people had short-term contracts so they were hoping to get a permanent position and they were completely cared to loose their job. So they were ready to do anything to stay in the institute.
In terms of feelings, people at the IHU are either scared by Prof Raoult, either completely enthralled by him or either trying to take advanges of him and his mediatic/political influences. By the fact, some technicians and engineers are captivated by him and are mimicking him : bullying other staff especially those who have a fragile personnality.
In this context, it's difficult to imagine how a technical staff (in charge to prove that the head of their Institute was right) will be able to report any negative results or limitations of the study during their investigations about the efficiency of combination of hydroxychloroquine/ azithromycine against covid19. Especially after the youtube video announcement posted by Raoult saying « Chloroquine will work ».
So when you know the context of the working environment at the IHU med Infection and you see that the published results have some biaises, you have to be cautious. And it's fair to confirm any encouraging results in other institutes."

Reply

_Jim says:
30 March, 2020 at 3:22 am

re: "because Prof Raoult is authoritarian, technical staff from IHU dedicated to research may fear to say that something is wrong or not working. And it's this behaviour which, for me, could be a serious barrier for research integrity in some of his scientific work."

I would have to counter with: It's pretty difficult to fake 'curing people' and having them walk out of

30 March, 2020 at 3:26 am

> "It's pretty difficult to fake 'curing people' and having them walk out of an ICU ward"

With Covid19, people treated with the standard regimen do that every day.

Reply

_Jim says:
30 March, 2020 at 3:39 am

Unsubstantiated, spurious reply. Have a good day.

Reply

Athaic says:
30 March, 2020 at 4:28 am

> *Unsubstantiated, spurious reply.*

Fine.
So far, on the more than 600,000 known cases of Covid19, 80% were benign, 15% were severe, and 5% needed intensive care.
The 80 patients in Raoult study? Same pattern.

Pr Raoult has now claimed in Twitter that he treated 1003 patients. 80% were benign. The rest of the pattern may be the same as well.
IOW, Pr Raoult still has to prove that his protocol does something.

Lana says:
25 April, 2020 at 7:37 pm

Les phages (bactériophage-virus bactérien) atténuent la virulence ou le degré d'infection d'une bactérie, et non l'inverse. Très probablement il s'agit d'une association de bactéries et de virus. C'est tout ce que je pensais avant. Dans ce cas, la microflore conditionnellement pathogène devient désespérément agressive.
Et puis l'inflammation est traitée avec de l'azithromycine. Mais la relation est différente. Les bactériophages sont plus susceptibles de nettoyer le corps.

Nous devons nous concentrer sur les infections mixtes, dont les mécanismes généraux déclenchent le virus
SARS-CoV-2 (Severe acute respiratory syndrome-related coronavirus 2).

Ce syndrome respiratoire aigu sévère est mieux associé.
avec des bactéries Prevotella et des champignons Candida. Les bactéries deviennent trop actives dans certains groupes, chez les individus avec une association formée individuellement. Des cas répétés indiquent la présence d'un virus dans le sang, apparemment pas prêt à déclencher une nouvelle vague d'exacerbation ?
Eh bien, existe-t-il des informations sur les résultats létaux après un résultat positif répété ?

David says:

FWIW I'm not saying this is happening, just that your premise that it would be hard to fake is invalid, even more so without adequate controls with similar demographic data (and more detailed demographic data in general).

Reply

William says:
30 March, 2020 at 11:27 am

unfortunately it is very easy , its called a "data ommission" thats how lying with data happens. Thats why integrity matters. Of course in this absolute emergency we are living with we dont have time for typicall testing processes. Anyways many countries have stared using his treatment in 10 days from now we will now how good it is.

Reply

Mary says:
31 March, 2020 at 2:09 pm

But they weren't in ICU….

Reply

Anonymous says:
30 March, 2020 at 3:13 pm

@leonid schneider, "because Prof Raoult is authoritarian, technical staff from IHU dedicated to research may fear to say that something is wrong or not working. And it's this behaviour which, for me, could be a serious barrier for research integrity in some of his scientific work."
"Autoritätsdusel ist der größte Feind der Wahrheit." – Albert Einstein
"The stupor of authority is the greatest enemy of truth."
Reminds me of a "bahram" (bahramdipity); see link to free PDF in my handle.

Reply

CN says:
3 April, 2020 at 11:50 am

Didier Raoult is a renowned physician and microbiologist. You are . I'll bet my family's lives on his work, not yours.

Reply

Charbax says:
30 March, 2020 at 4:27 am

"A rapid fall of nasopharyngeal viral load tested by qPCR was noted, with 83% negative at Day7, and 93% at Day8. Virus cultures from patient respiratory samples were negative in 97.5% patients at Day5."

Compare that with viral load on any other covid19 patient in the world not being treated by this

30 March, 2020 at 8:43 am

Yep, this it the best secondary endpoint out there. And should be available.

I have not seen anything from public health agencies on which this.

Reply

Tommysdad says:
30 March, 2020 at 12:19 pm

Why do you think that data is out there? Many symptomatic patients can't get tested once, let alone multiple times over a week.

Reply

Jalifad says:
30 March, 2020 at 11:00 am

Enough said. All else compare as futile. Thank you

Reply

MR says:
31 March, 2020 at 6:22 pm

"Compare that with viral load on any other covid19 patient in the world not being treated by this HCQ+AZM. Ignore everything else."

That's exactly the point – Raoult didn't do that. There is no comparison to untreated patients.

Reply

Lambchops says:
30 March, 2020 at 4:42 am

I heard on the news yesterday that a trial of chloroquine is due to be started in the NHS in the over 65s and people over 50 with particular risk factors. This is to happen through frontline GP services, with a screening process in place when people present with symptoms and eligible patients will be given the option of participating in a randomised trial. The idea being that they'll catch people before the ICU and see if the drug is effective before patients are in a bad way.

Can't see further details with a quick google search but sounds like it will be a useful trial – although there's a little bit of the Alzheimer's type language of "it could work if we just treat people early enough" that dampens the optimism somewhat – let's wait and see how the results pan out.

Reply

HU says:
30 March, 2020 at 5:47 am

I mean many antviral drugs (particularly influenza) do work that way.

30 March, 2020 at 5:39 am

Interesting part where you discuss the paper findings, but I don't know why you have to discuss personality questions, or use ad hominem arguments

Reply

milkshake says:
30 March, 2020 at 6:17 am

I don't know – could it be that behaving like a pompous douche and mistreating your research group members might be sometimes getting in the way of doing good research?

And do you call at hominem attack just mentioning failures of a PI as an adviser group leader, and the lack of research integrity that included 1) journal ban 2) multiple instances of data manipulation?? In my dictionary, it only says Caveat emptor

Reply

quinoline mensch says:
31 March, 2020 at 2:41 pm

Speaking of behaving like a pompous douche, check out the comment section of the "For better science" web "article" author that Derek chose to prominently highlight here (??!)
https://forbetterscience.com/2020/03/26/chloroquine-genius-didier-raoult-to-save-the-world-from-covid-19/#comments

Just one example comment of many..: Sheesh!!

Leonid SchneiderMarch 30, 2020
"Augie, pull your head out of your arse you deranged antivaxxer.
Professor Raoult receives millions from Big Pharma, it is all over his institute's website. His key sponsor is Sanofi, which just happens to sell chloroquine, including for the Discovery clinical trials starting now.
How much Raoult receives into his own pocket, as a very likely Sanofi consultant, advisor or invited speaker, is to be figured out.
As for who paid for this article: I will tell you the truth. I am on the payroll of the Elders of Zion."

Talk about an author-ignited dumpster fire… ?

Reply

quinoline mensch says:
2 April, 2020 at 11:05 am

And another thing. It is preposterous for anyone who has worked at any professional level in the western pharma industry to seriously suggest or believe that Raoult must be getting big "though-leader" payments for promoting off-label chloroquine therapies.They ought to know very well that there is no profit in antiprotozoal/antiparasitic (ie Third World) agent development. It has been the red-headed stepchild of "1st World" drug companies for the past 4 decades. Raoult, who was born in Senegal and has worked in infectuous diseases for 4

lifesaving antiinfective drugs, have probably done so only after decades of begging, haranguing, and finally effective public shaming by the relentlessly irritating, overbearing, striving– and totally dedicated Dr. Raoult (with 9400 Pubmed citations to his credit).

Reply

Jos. J. Schall says:
30 March, 2020 at 12:38 pm

ad hominem is “to the person”. These issues are not about the person, but how the research is conducted. How the PI conducts lab meetings, or how the researchers are treated — that is about the research, not about the person. If the lab PI turns off the lights for a random hour each day, that would affect the research quality, and any criticism of that behavior is not about the person.

Reply

John Peters says:
30 March, 2020 at 9:27 am

Regarding the ethical issues associated with holding back a potentially effective therapeutic, one might consider only treating and measuring viral load on so called prodromal patients without symptoms or risk of hospitalization.

Beyond that, Athaic and Charbax are right on all counts here. The data remains inconclusive even in this 80-patient study, primarily due to lack of a comparator arm and statistical powering.

Reply

Andro says:
30 March, 2020 at 9:36 am

I now read this long analysis in details, including the comments and controversies, and I have to agree with the author.

Namely, that in spite of this additional study, we still don’t know if the results of the treatment are better than if the patients were not treated at all. That the scientific approach of the study is sloppy to say the least. And that the reaction of Raoult and his team tend to confirm the criticism being made.

Reply

Jon says:
30 March, 2020 at 9:37 am

Dr. David Gorski, over at SBM :

https://sciencebasedmedicine.org/hydroxychloroquine-and-azithromycin-versus-covid-19/

had a few remarks of his own about this latest “Study”. I think Dr. Lowe’s take on it is more polite, but the conclusions, I believe, are roughly equivalent.

Reply

The good news is, New York has a big, FDA approved trial underway (started last Tuesday.) One way or another this little French trial will be overtaken by events.

Side question – as a layman I'd have guessed we'd be seeing rumors and innuendo of great results in New York if the treatment was miraculous. For that matter, the Chinese approved this protocol in February, so its not as if its a secret. (Here is a "Don't start hitting the malaria medicine" PSA tweet from Nigeria! Dated Feb 28; I presume malaria pills are kept handy down there.)

https://twitter.com/DrZobo/status/1233301416892080129

Does the absence of reported successes around the world make others skeptical?

Reply

David Young MD says:
30 March, 2020 at 10:36 am

Keep in mind that Hydroxychloroquine is not an antimalarial medication. Most malaria is resistant to Chloroquine and HydroxyC is much less effective. The Nigerians may have Chloroquine stock up but they certainly do not have HydroxyChloroquine save up.

Reply

Larry Margozewitz says:
30 March, 2020 at 2:08 pm

Funny, with the dislike for Trump in the media I find the lack of reporting on the failure of this regimen intriguing.

Reply

tc says:
30 March, 2020 at 12:16 pm

There's plenty of anecdotal reports of success, even miraculous success. Also some unpublished data from China that shows it works.

https://twitter.com/aknappjr/status/1244076221563977740

https://twitter.com/__ice9/status/1244228322277670912

Reply

Derek Lowe says:
30 March, 2020 at 12:41 pm

Ah, but there a published study from China that came up as "no effect" as well.

https://blogs.sciencemag.org/pipeline/archives/2020/03/24/the-latest-coronavirus-clinical-trials

Reply

have been impossible for an investigational therapy to do better. The only conclusion that can

be drawn from that study is “we don’t know either way”, NOT – “this drug doesn’t work”.

Reply

Charles H. says:
30 March, 2020 at 1:48 pm

What I heard (over an internet chat board) was that the Chinese found that it worked as a part of a combined approach, and only if you started before symptoms appeared.

Now I’ve no idea whether there was any statistical backing for that beyond “well, isolation is needed anyway, it won’t do any harm, and most people live through it”, but that’s what I heard. Believe it if you want to. (I tend to believe it with the caveats listed between my quotes.)

Reply

Derek Lowe says:
30 March, 2020 at 2:43 pm

No published data, only anecdotes. The only published data on this from China showed no effect versus the control group.

Reply

Curtis Johnson says:
30 March, 2020 at 4:04 pm

The Chinese also have anecdotal reports of virility from ingesting rhinos horn

Reply

Colintd says:
31 March, 2020 at 3:51 am

But there is also Chinese government statements claiming excellent outcomes using traditional Chinese medicine. And originally that there wasn’t a new infection at all…

Reply

Derek Lowe says:
30 March, 2020 at 12:44 pm

I have had the same thoughts: chloroquine, hydroxychloroquine, and their combination with azithromycin are being used *extensively* off label since this work got publicity, and you wonder if you would have started seeing some effect in the numbers – or even in the anecdotal reports out of places like NYC. But I haven’t heard any.

Reply

Jim Andrews says:
30 March, 2020 at 11:54 am

conventional supportive treatment, the patients has to be given an option of using the HCQ and AZT as last ditch resort. Having been a principal investigator for over 250 clinical trials I am not sure if a randomized control trial is ethical here! I believe patients who were not treated with such combinations in other hospitals should be used as control! To hear doctors that are critical of using HCQ AZT off label, they are either academic idiots who are not actively treating patients, or they suffer from “not a good idea because it’s not my idea” syndrome

Reply

Derek Lowe says:
30 March, 2020 at 12:41 pm

People seem to be forgetting the clinical trial in China where chloroquine showed no effect at all. It was small, but it at least had controls.

Reply

Jim Andrews says:
30 March, 2020 at 2:27 pm

That trial in China may be valid. Who knows?

It is already known that hydroxychloroquine performs better than chloroquine.

And the truly promising data now is pointing toward the combination of hydroxychloroquine, azithromycin (Z-pack), and zinc.

New, large trials are in motion and we will have data this week or next.

Reply

loupgarous says:
5 April, 2020 at 12:30 pm

It’s *asserted* that “It is already known that hydroxychloroquine performs better than chloroquine” [[as what? prophylaxis against malaria? prophylaxis against the etiologic agent in Covid-19? Treatment of an ongoing Covid-19 case?]]

“And the truly promising data now is pointing toward the combination of hydroxychloroquine, azithromycin (Z-pack), and zinc.” [[anecdotal data or scientifically-gathered data?]]

“New, large trials are in motion and we will have data this week or next.”
And if the properly-conducted trials among them (not DIdier Raoult’s) show lack of efficacy or no improvement over standard of care, what are the people who *really* want the chloroquine drugs to work going to say> “Cover-up?” “Deep state conspiracy?”

Anything but “Ok. we did proper studies and didn’t see an effect. Next drug!”?

Reply

Mark says:
30 March, 2020 at 3:47 pm

Jim Andrews says:
30 March, 2020 at 7:06 pm

The trial in China was with one drug: chloroquine.

The promising treatment is a combo of hydroxychloroquine, azithromycin, and zinc.

So we'll know soon. Time will tell.

Reply

Anonymous says:
1 April, 2020 at 9:42 am

Really missing the point of the control arm results here with this comment.

Science Matters says:
30 March, 2020 at 3:30 pm

I think it's reasonable to use HCQ/AZT as a last resort treatment, if you assume the patient is likely to die without any intervention. There just needs to be some understanding that its entirely likely some of these patients would have recovered without the treatment but will instead be killed or seriously harmed by HCQ/ AZT side effects (not to mention the issues with breeding antibiotic resistance, depriving lupus treatments, hoarding etc). There will be harm caused from using these compounds – full stop. As long as clinicians and the general public understand and accept that, then fine – go for it.

But, I think that's beside the point. I think what's more galling to people isn't using these compounds as a last resort, it's declaring them "the cure for COVID19" without evidence for such a claim. A combination of false hope and distraction from future trials that are better run is not a good combination.

Reply

Jim Andrews says:
30 March, 2020 at 7:10 pm

"Without evidence."

That keeps getting thrown around as if it were true.

Mass doses of hydroxychloroquine and azithromycin are being distributed and prescribed now all over the world…

New York is running a trial with 1,100 patients that started last Thursday…

Why?

Because of the small, early studies that have indicated some success.

Also known as "evidence."

Reply

Reply

Science Matters says:
31 March, 2020 at 10:57 am

The plural of anecdote is not data, and data is what you need if you want to recommend widespread treatment. The early trials suggested more controlled studies should be done to see if the effects were real, and this is what is being done elsewhere. This is precisely -NOT- what was done by Dr. Raoult, but you wouldn't know that based on his (and others') descriptions of these studies.

Given such a garbled set of data, would it not have been more responsible to either say, "Our results were not completely clear – we need to wait for higher powered studies" or to actually run the study properly in the first place, rather than shouting from the rooftops that a cure has been found?

Reply

Kaleberg says:
31 March, 2020 at 12:23 pm

There is definitely evidence, but that evidence is weak. There is not much statistical power, the report is opaque and inconsistent and the source is demonstrably unreliable. Rolling out a treatment for a lot of people requires a lot more evidence than we have right now. Anyone who followed the LHC and Higg's boson would remember the "diphoton bump" that vanished as N grew larger. At least the LHC experiment, data and analysis were open for review.

Pharmaceuticals are all about Bayesian statistics. When a treatment can have bad side effects and the evidence is weak, wishful thinking is no substitute for careful testing with real statistical power, good controls and experimental transparency.

Reply

Boris Barbour says:
30 March, 2020 at 11:58 am

Scientific and technical comments related to the article can also be posted or linked on PubPeer:
https://pubpeer.com/publications/16FA317CB5E5E33232F7E929C86BB0

Reply

luysii says:
30 March, 2020 at 12:06 pm

Unfortunately, I think it is quite likely that all of us will meet COVID19 at some point, absent a vaccine — https://luysii.wordpress.com/2020/03/29/covid19-could-be-coming-for-you/

Reply

ScientistSailor says:

For more information on labeling axis:
https://xkcd.com/833/

Reply

Greatest ratings says:
30 March, 2020 at 12:20 pm

It's absolutely sickening how you big pharma blue checkmark shills are trying to keep the country sick until you can sell us your new 'vaccines' and on-patent drugs. President Trump has done everything in his power to deliver us from evil but you deep state eleteists are h*ll bent on dragging him down. Sick.

Reply

David says:
30 March, 2020 at 1:18 pm

I'm a pharma person, but without any financial stake in vaccines or hydroxychloroquine (which is off-patent and, if found to work well, will be manufactured by numerous generic companies at low cost). I spent a career doing clinical trials, mostly on drugs that had better rationale and better supporting evidence than this one. And most of those trials failed.

The reason we require trials before pushing new drugs into widespread use is that most of hopes & aspirations turn out to be wrong. What if hydroxychloroquine doesn't work? It will kill a few people, by QT prolongation, and cause another few to have other nasty adverse reactions. Possibly for no gain.

Pushing unproven therapies with known risks is a mistake.

Reply

Charles H. says:
30 March, 2020 at 1:56 pm

Agreeing with almost everything you said, but…
I have occasional gout. I used to take colchicine for it whenever I had an attack…a couple of times a year. It was a generic and cheap. It got taken off the market as a generic, and now one can only buy it by brand name, and the price has increased drastically. Some people take insulin, and they can tell worse horror stories.

I do not trust the pharmaceutical companies to operate in even reasonable good faith. They want a captive market, and will scheme to get it. You can believe that they almost always act within the law if you want to, but the evidence is at best equivocal.

Reply

Derek Lowe says:
30 March, 2020 at 2:42 pm

Ah, the colchicine story is more the fault of the FDA. They put in a program to "re-verify" old

Reply

Nat says:
30 March, 2020 at 3:25 pm

The FDA plus whatever bottom-feeders decide to exploit the loophole to make a quick buck. I think part of the problem is that the public mostly notices the latter, and also tends to think of “Big Pharma” as some monolithic entity.

Nat says:
30 March, 2020 at 1:25 pm

As is increasingly the case these days, I can’t tell if this comment is intended to be satirical or not.

Reply

pete says:
30 March, 2020 at 1:46 pm

hey Greatest, how’s the weather there in Moscow ?

Reply

French scientist says:
30 March, 2020 at 12:21 pm

Dr. Raoult is well known of the French biomedical community, and so are his unorthodox practices. It came as no surprise to many of us when recent press reports came out that he is no longer a member of the scientific committee advising the French government in it’s response to Covid-19. One can imagine that many of these questions were raised every time the committee convened…

Reply

JM says:
30 March, 2020 at 12:27 pm

It is interesting that the French government chose not to include hydroxychloroquine + zpac in the Discovery trials.
The French arm of this trial is being conducted by inserm (not Dr. Raoult’s team, who walked out of the French scientific committee…) and has already enrolled 800 hospitalized patients.
Chloroquine is included in the study along with 5 other molecules. The discovery study started 10 days ago and is being run and is a multi-site European trial.

Reply

TallDave says:
30 March, 2020 at 12:32 pm

No peer-reviewed, randomized, controlled, double-blind, triple-replicated clinical trials suggesting taking a step backward while standing on the edge of a crumbling cliff is safer than taking one

30 March, 2020 at 12:38 pm

Cute! But we know a lot more about cliffs than we know about medicine.

Reply

DD says:
2 April, 2020 at 3:05 pm

Same with vaccines.. right?

Reply

anon the II says:
30 March, 2020 at 1:23 pm

Derek, I appreciate the work you do and the information that you provide. Keep up the good work and stay safe.

Reply

luysii says:
30 March, 2020 at 1:32 pm

The discussion of what to do in the face of conflicting and contradictory evidence laid forth in Derek's last few posts and comments following, is typical of the sort of reasoning that docs must apply in many situations.

Does this remind the chemists of they way they must think of reactions — which will matter more — stereochemistry or electronegativity or polarizability etc. etc. All 3 are present and conflict with each other in any moderately complicated reaction, and must be balanced against each another.

As a former organic chemist and doc, the ability to reason in such a situation is EXACTLY why premeds should be required to take and pass organic chemistry. If they can't do it here, they won't be able to do it well with a patient in front of them

https://luysii.wordpress.com/2009/11/01/why-premeds-should-be-required-to-take-and-pass-organic-chemistry/

Reply

Derek J. says:
30 March, 2020 at 1:45 pm

> Update: more at Slate, who refer to Raoult as "Trumpian", which I have to say is an adjective that I had considered as well

Oh I didn't realize this was a political post. Now I wonder if Dr. Raoult is on to something and you are just doing a character assassination on him due to your political leanings. Great distraction from your own points.

Reply

Self-promoting, intolerant of dissenting opinions, bullying of subordinates, grandiosity. If the shoe fits. And as you well know, with Trump's repeated promotion of this treatment regiment, no post on it can avoid politics.

Reply

chemist says:
7 April, 2020 at 3:27 am

You wrote a blatantly partisan article and clearly someone put you up to it. Who was it?

Reply

Stephen Davey says:
30 March, 2020 at 2:12 pm

And now this: Headline from Washington Post "FDA authorizes widespread use of unproven drugs to treat coronavirus, saying possible benefit outweighs risk"
https://www.washingtonpost.com/business/2020/03/30/coronavirus-drugs-hydroxychloroquin-chloroquine/

Reply

Andreea Sorin Matache says:
30 March, 2020 at 2:44 pm

These insane scientists want "control group" meaning to let hundreds of people to die so that they justify their shitty "scietific" diploma!

I wonder why Penicilin only took 20 patients cured to be accepted, but now we wait for months with over 5000 people dying each day, so that some idiots have their shitty diploma!

Shame! You are all disgusting creatures!
None of you have any experience curing a pandemic, all of you have tweeter accounts and I am sure all of you already hoarded hydroxychloroquine while talking crap online like spineless rats!

Is a shame to see you speak of people dying. I hope all of you and your tenures get revoked after the pandemic and each one prosecuted for delaying the cure and causign more people to die!

Reply

Derek Lowe says:
30 March, 2020 at 3:01 pm

Now it's time to look up the phrase "effect size". There are others you'll want to learn, but that's a start. And (1) I have zero chloroquine or hydroxychloroquine on hand, nor do I have access to any in any other way. (2) Nor would I take either without more scientific proof. And (3) most of the people commenting on here are not tenured professors (although there are a few). I work in the drug industry and can be let go at any time, as has been proven more than once over the years.

Reply

1. It's been reported that Russian physicians have had success with using mefloquine as a treatement against Covid-19. Any reason to think there's anything to this or just propoganda?
1a. In the reports I saw on this, there was no discussion of dosages. When used against malaria it's a once-a-week pill… is that the dosage the Russians have allegedly used?

2. Any updates on studies of using Tamiflu at onset of symptoms? I did see a report that Tamiflu combined with Kaletra was ineffective (however the treatment was started well after onset of symptoms) , but what about Tamiflu alone within 48 hours of onset – as it's supposed to be used against influenza?

3. Has anyone looked at using PrEP medication (e.g. Truvada) as prophylaxis?
3a. It seem that this could be easy to get a quick read on via data mining… for example look at infection rates of clients at NYC's GMHC who are on PrEP vs those who are not.

Thanks in advance!

Reply

Elliott says:
30 March, 2020 at 4:05 pm

Don't know where you got your history. Penicillin was thought too risky to try on someone who wasn't dying already, so the first person to get it had terminal cancer. She suffered toxic effects because the drug was impure. The second patient died because they didn't have enough drug. It took more than 170 patients, and the combined efforts of ~ 15 pharmaceutical companies to learn how to make enough drug, before confidence built up enough to take it to the battlefield, where additional trials were run on wounded soldiers.

Maybe you should volunteer yourself for a clinical trial.

Reply

rtah100 says:
30 March, 2020 at 7:14 pm

I was convinced the first person to be treated was a policeman, who went into remission but the penicillin supply ran out and he relapsed and died.

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

No, I am wrong, apparently the first attempts were shaving spots/boils (treatment failed) and ophthalmia neonatorum. The policeman was the first patient to be treated with mass produced penicillin.

Nothing about a cancer patient though.

Reply

Elliott says:
31 March, 2020 at 8:41 am

Wikipedia is incomplete, as usual.

that came later.
The other effort that you mentioned was single attempt to treat gonorrhea in infants. At that time (1930?) no one knew how to make much penicillin. Infants were chosen because they're small and so require smaller doses. Only one baby was cured–not exactly a clear result. Doing such an experiment today would probably land you in jail.

It was impossible to really test the drug until its manufacture could be scaled up–that took a tremendous multinational effort with huge cost involving thousands of people.
Implying that it was easy and fast ignores the uncertainties, the hard work, and the risks (in lives and in other respects) that were taken.

Reply

Jiajia says:
30 March, 2020 at 3:00 pm

Hi Derek,
I want to mention that the dose should be important for CQ or HCQ, 400mg or 600mg per day seems not enough to maintain the concentration of the molecule in plasma> in vitro EC50 for 24 hours. There were many trials in China but the Shanghai one chooses the wrong dose? Apparently, the recommended dosage from Guangdong/China is 1gram for CQ/diphosphate, or =800mg HCQ sulfate, per day for 7 days.

Reply

anon says:
30 March, 2020 at 3:11 pm

An Update on the Coronavirus Treatment
Hydroxychloroquine and azithromycin continue to show results for patients.

https://www.wsj.com/articles/an-update-on-the-coronavirus-treatment-11585509827

Reply

Dave Kielpinski says:
30 March, 2020 at 4:44 pm

The Wall Street Journal is not a credible source on scientific topics.

Reply

quinoline mensch says:
30 March, 2020 at 6:23 pm

As long as we are passing judgement on credible sources, how about that Slate magazine hit piece offered by Derek above , on the hydroxy-CQ/zithro covid treatment pilot study PI MD over Didier's tone/management style (really??), written by a freelancing european history lecturer? https://slate.com/author/robert-zaretsky.

Oh yeah, by the way, with our current standards of care, Covid deaths in the US are projected (by

Lambchops says:
31 March, 2020 at 4:34 am

Pro tip. Always link to the actual study (or any other news source!) rather than the Daily Mail article.

If the Mail published an article stating “2+2=4” a significant proportion of the UK population would tell you that if the Mail said it, it just can’t be true!

Reply

Matt says:
30 March, 2020 at 5:44 pm

https://asiatimes.com/2020/03/why-france-is-hiding-a-cheap-and-tested-virus-cure/?fbclid=IwAR3ire6DQ6mT4HDOBmcx_-gTHZdNZxv-4Nb2TsdRA0Mk999quAGfUm42a70

Interesting read.

Reply

Jay says:
30 March, 2020 at 6:52 pm

This article reeks conflict of interest!

Reply

John Mashey says:
30 March, 2020 at 7:00 pm

UCSF’s Chair of Dept of Medicine Bob Wachter ran a panel March 19 on COVID.
I summarized it in this thread, with links to the sections of video.
https://twitter.com/JohnMashey/status/1241520141638053888 1-24
See especially tweet 5, Professor Annie Luetkemeyer’s discussion of WHEN one might (or might not) use CQ/HCQ treatments during course of disease.
https://twitter.com/JohnMashey/status/1241520147598200834
Watch that part of video:
https://www.youtube.com/watch?v=bt-BzEve46Y&feature=youtu.be&t=2348

Reply

chezpaul says:
30 March, 2020 at 8:18 pm

I don’t understand how you guys can argue about this as a substance that does not work.

First trial of 26 patients, 24 out of it in 6 days. 6 days!
Second trial of 80 patients, 79 out of it in 6 days. 6 freeking days!
Third trial in NYC with 500 patients (and added Zinc) , 100% out of it in again 6 days!

drug. HC+Az. Even Dr Raoult says using only HC gives a 67% result. It's counterpart Chloroqine alone, even less.

Yes, he's a crazy french man, but he's a crazy genius french man. He's top 10 in the world in his field. And he's been at it for a while. I know it's hard to fantom for Americans.

Did any of you also ever wonder why there is no COVID in Africa? Could it be because they all have Chloroquine in their system 24/7 because of the threat of Malaria?

All this seems so clear to me. Only time will tell but if I do get sick with COVID, I will be asking to use it.

Reply

madmax says:
31 March, 2020 at 3:02 am

I agree. By the way, any link for NYC trial results?

Reply

Covidiot19 says:
31 March, 2020 at 4:21 am

What about the fact that africa perhaps hasn't got the capacity for testing? Therefore may cases of coronavirus will go undiagnosed?

What about the links to what is clearly faked data?

Without widespread testing and a control group, we don't know what the true recovery rate is. While it is great that all these people in the trials you mentioned are getting out after 6 days, how many would have done that anyway? We just don't know. Thats the point that Derek is trying to make.

Reply

Athaic says:
31 March, 2020 at 4:35 am

"First trial of 26 patients, 24 out of it in 6 days. 6 days!
Second trial of 80 patients, 79 out of it in 6 days. 6 freeking days!
Third trial in NYC with 500 patients (and added Zinc) , 100% out of it in again 6 days!"

And HCQ/CQ untreated patients are hold in hospital forever.
Oh wait, no, they go out in about 6 days too. Well, for the non-severe cases anyway.

"The virus load is 0 in 6 days. I didn't see one guy comment about that in this thread. "

Read again. We keep saying we don't know what to compare this "0" to. What's supposed to happen in non-CQ/HCQ treated patients?
Actually, thanks to someone like you, I had another read at the first Raoult study. That made me realize something.

IOW, Raoult's own controls may mean that, in benign cases, the virus load will go to "0" by day 6 all on its own.

"Did any of you also ever wonder why there is no COVID in Africa? Could it be because they all have Chloroquine in their system 24/7 because of the threat of Malaria?"

The malaria has developed resistance to chloroquine and the later is not used anymore "24/7". If it was at any point.

Reply

YG says:
1 April, 2020 at 9:57 am

=> We keep saying we don't know what to compare this "0" to.

just look at https://www.worldometers.info/coronavirus/?fbclid=IwAR3MsO9JJSpe4DWy-CqYvIhFlVG72RzfzjxbuCdzYmqlczpu2j1PMV8mQBQ#countries
Welcome to reality (avoid the China statistics)! In Italy, 12,428 deaths per 105,792 tested cases… Even if there are 1 tested cases for 10 cases, it makes a rate 1% (while in the current statitistics of IHU, they had 1 death per 1000 cases with more that three days of CQ+AZM https://www.mediterranee-infection.com/covid-19/?fbclid=IwAR0KMfIeFwI4KgwT5rG9yxd3Q0csxYzMDgUwBq7dPn_3LJ8ioculUusKNlk). With a ratio of IHU is of 1death per 1000 tested cases while it is of 100 deaths per 1000 tested cases in Italy, it makes a huge difference… Not sure that all the differences between the two samples (Marseille is close to be an Italian city) can explain such a difference.

Reply

Eli says:
30 March, 2020 at 10:05 pm

Control groups are luxuries for when you don't have a health emergency. Lots of what you call "anecdotal" evidence becomes real evidence when it happens many times. This attitude is like saying "we can't be sure that high calorie diets cause obesity because we don't have a control group to compare to," but if someone is obese I don't need a scientist to tell me that the obese person is eating too much.

Reply

Science Matters says:
31 March, 2020 at 11:12 am

I would argue control groups are MOST important during a health emergency. We have a finite amount of resources and we need to learn as much as we can from as few trials as possible to act quickly and efficiently. We don't learn much of anything if there is no control group. It doesn't have to be a traditional control group where a selection of those enrolled get no treatment, but you need SOMETHING or else all you've got is another collection of anecdotes saying, "maybe it works – we need to run another study to find out".

And if you don't run that study, and just hope for the best, it's quite possible all the resources

Nick says:
30 March, 2020 at 11:11 pm

Hydroxychloroquine (HCQ) was shown to inhibit SRAS COV2 at EC50 ranging from 1 to 10uM depending on the studies Yao et al. 2020 and Liu et al. 2020. The data from Gautret et al. 2020 first open non-randomized study clearly shows HCQ concentration in patients serum ranging from 1 to 5uM in 20 patients at days 2 to 6 of dosage post treatment. The PK models presented by Yao et al. 2020 suggest that the serum concentration reported by Gautret et al. would be compatible with lung antiviral activity of HCQ. Together with the good safety profile of HCQ, these data should have sufficed to allow compassionate use of HCQ in the treatment of COVD19 patients under medical supervision. Sadly most comments focus on the design of the trial rather than the PK data.

Reply

Patrick says:
30 March, 2020 at 11:25 pm

Well done Derek on having the patience to get through the dumpster fire of a paper and then to follow up on the author.

Reply

Thrasybulus says:
31 March, 2020 at 10:03 am

Not to mention having to deal with the dumpster fire of some of these comments. Sheesh. I wonder which tabloid alerted the knuckle-draggers that a reasonable discussion was here to be disrupted with pseudoscience?

Reply

loupgarous says:
31 March, 2020 at 12:05 am

No matched control arm. Only one individual age at endpoint published.
Even Azithromycin by itself might have made a reasonable control group (as “standard of care”).

A study like this submitted in support of an NDA would (hopefully) crash hard at the ADCOM meeting, unless an ADCOM had been convened, great evidence of efficacy shown, and the FDA itself recommended the study controls be lifted (unlikely).

Raoult Didier doesn’t deserve any more attention than he’s already had, except from the requisite ethics boards.

Reply

Lane Simonian says:
31 March, 2020 at 1:30 am

Lousy people sometimes produce good research. I am not saying that this is the case here, just an

In terms of the Slate article, be kind to European history lecturers. We are generally good people.

Reply

JOHN WAGNER says:
27 May, 2020 at 1:42 pm

LMAO Great reply.

Reply

Paul says:
31 March, 2020 at 1:39 am

Thank you for the in-depth article! If Dr. Raoult's behavior is indeed as ethically dubious as it appears to be, I hope he does not leave behind the same legacy of disinformation that Mr. Wakefield did on the efficacy of vaccines.

Reply

Jim Mowreader says:
31 March, 2020 at 3:36 am

It occurs to me that Raoult's results look a heck of a lot like normal disease progression in a person with a functioning immune system. It ALSO occurs to me that neither of the drugs Raoult is using has much of a track record against viruses. Somewhere upthread someone talked about HCQ/AZT cocktails…has anyone thought about trying just a low dose of antiretrovirals? At full strength these things are exceptionally hard on the patient…but what about at a third or half the dose given to an HIV patient? There seems to be an actual anticoronaviral out there, but it's a biologic – which means it's probably the price of a Cadillac per dose.

Reply

Mahar says:
31 March, 2020 at 6:27 am

Well, if nothing else this piece has successfully smeared the character, morality and scientific rigor of Dr. Raoult.

He is portrayed as unethical, irascible narcissistic, venal, and tolerant of overt racism and sexual abuse of women.

If this characterization has not been tainted by an underlying political agenda or partisan bias then Dr. Raoult qualifies as a despicable human being, and perhaps worse, as a Republican.

What is not addressed here is whether these preliminary studies offer sufficient evidence to consider the use of this combination therapy in end-stage patients who have not responded to the current standard of care and no other therapeutic options?

This is illustrative of the difference between medical practitioners and medical researchers who have no front line experience in providing care to patients.

Very surprising and disappointed to find out that Dr Raoult is being criticized ad hominem. Was Robert Gallo's science criticized because of allegations that he misappropriated HIV from Luc Montagnier? Are Tom Friedman's opinions and advice on Vitamin D in relation to the current outbreak because he had been found guilty of groping women? Why then is Dr Raoult attacked in the same manner. Physicians who prescribe these drugs on an off-label and compassionate basis, and their patients, should be grateful to him, Donald Trump and the early Chinese HCQ/CQ investigators for highlighting the possible efficacy of HCQ and AZ (BOTH OF WHICH ARE ALREADY AVAILABLE AND ALREADY WIDELY USED, and whose supplies can readily by scaled up, unlike Remdesivir, etc.).

Reply

Some idiot says:
31 March, 2020 at 10:27 am

sigh ok, I'll bite…

Dr Roult's results are being "examined with skepticism" precisely because of the way he does science. More specifically, that the published data/results do not appear to have any statistical strength to show what he believes they show. There could be many reasons for this, from sloppiness resulting from eagerness, through a range of other options, to other worse options. But the "why" is irrelevant.

What is _relevant_ is that (as many have commented here) there is no significant measurable difference in outcomes of his treated patients compared to comparable patients that have not been treated. Therefore, despite this (and a number of other, small studies) we simply don't know whether it works or not. If the proper trials with the proper methodologies had been run to start off with, then we/he would not be in this situation now. Fortunately, other studies, with appropriate methodologies are being run now, so we should find out soon. I really hope that something useful comes out of it, but I am skeptical (in the proper meaning of the word, I would love to be _proved_ wrong… I am a scientist, and I talk with data).

Again, as others have mentioned, these drugs have very well known side effects, so therefore the benefit (if any) of using these drugs must be weighed up against these side effects.

And just for the record: this discussion is not whether or not these drugs are better or worse than any others in development. It is whether or not they deliver a net benefit to the patient or not. Full stop. Let's focus on efficacy (and therefore efficacy vs side effects) first…!

Disclaimer: I have no no financial interest in any treatment method whatsoever for COVID-19. My only interest is a humanitarian one, hoping that any new treatment will be better than the current Standard of Care.

Reply

Dontgetit says:
1 April, 2020 at 11:22 am

Say 99% of people recover from the virus as is claimed
Presumably most of these 99% do not get near an hospital.
Only the proportion who get in trouble with the virus (5, 10, 15% of the population? …) end up in hospital. So, if 99% of this limited population then walk out 6 days later, it is great news

what may work

Reply

Nick says:
2 April, 2020 at 5:51 am

"There is no significant measurable difference in outcomes from his treated patients"

I'm not convinced it's the case that there is nothing measurable here. Even if the initial small study is in doubt, Raoult's team are publishing stats on the patients they have treated and updating them daily here: https://www.mediterranee-infection.com/covid-19/

This shows the number of patients treated and the number of deaths in the treated group (2 deaths / 1677 treated patients as of today). Death or survival seems to me to be a measurable outcome. We know enough about the disease from other sources to know that we would expect a lot more than 2 patients out of 1677 diagnosed with it to die.

To demonstrate this level of success by falsification and/or manipulation of data would require the institute to rig the data to a shocking degree – are we really suggesting that this deliberate rigging is what is going on here? It seems highly unlikely to me that an eminent scientist with a reputation to maintain would be doing this.

While I agree it's not proven beyond any doubt at all, I think there are strong enough reasons to think it likely that this treatment is beneficial, and the safety profile of the drugs is well known

Reply

HCG says:
31 March, 2020 at 6:31 am

Oops: not Tom Friedman but Tom Friedan

Reply

HCG says:
31 March, 2020 at 6:50 am

The ethics of using HCQ+AZ unless data from the gold-standard, double-blind controlled trials of HCQ+AZ is being questioned. I'd question the ethics of conducting such trials in the midst of an accelerating pandemic. Who are or will be the controls (presumably given a placebo)? Is it/will it be ethical to watch the controls become infected, deteriorate or die just to compare patients in the therapeutic arms of the study?

Reply

JAJ says:
31 March, 2020 at 9:14 am

Agree. The author should be required to show his financial interests. Does he own Gilead shares? I want a record of his own personal interactions with women . His employers should go back and

colintd says:
31 March, 2020 at 9:22 am

The key questions are:

* Whether patients in dire need should be giving this “treatment”, something else, or nothing (remembering that the wrong “treatment” may well be worse than doing nothing)?

* What fraction of limited resources to dedicate to ramping up production of “treatment X”, instead of “treatment Y” or “treatment Z”

Without hard data we can’t decide on these questions, and the “obvious” answer is not always for the best.

For decades the default treatment for people who had suffered massive blood loss as a result of trauma, was to increase blood volume by adding saline (if nothing else was available, or if matching hadn’t been done). It was so obviously the right thing to do that there were no significant trials, double blinded or not. Maintaining blood pressure was everything.

Unfortunately, the reality was that people who received large amounts of saline often bled out because the increase blood pressure, coupled with a reduced fraction of platelets and clotting factors meant clots didn’t form, and in many cases, they started bleeding even where there were no obvious wounds.

It was only in the last few years, when someone did proper analysis, that it was realized that the “default”, “obvious” treatment was killing people.

https://www.sciencedaily.com/releases/2019/11/191112114011.htm

With this insight treatment was changes, and there was a 40% reduction in deaths.

It is very easy to fall into the “We must do something! X is something. We must do X!” line of “reasoning”. This is a very dangerous path to go down, and the severity of the crisis makes it more not less important we take decisions backed by real data.

Reply

Stub says:
31 March, 2020 at 2:42 pm

The argument that it would be unethical to “watch the controls become infected…” while the treated group improves, and thus no control should be run, makes the assumption that the treatment works in patients. The whole point of the trial is to determine if it works; otherwise, why bother doing any trial at all? How do you know it works? Wishing it were so does not make it so.

Reply

Guy Jones says:
31 March, 2020 at 11:01 am

Interesting essay, with some fair observations, but, at the end of the day, a physician’s allegedly abrasive personality and sloppy articles submitted for publication are really quite irrelevant to the

MR says:
31 March, 2020 at 6:26 pm

Not at all irrelevant. It's difficult to verify data like this, so when he's clearly fabricated data before, it's a warning flag not to take him at his word. See, for another example, Andrew Wakefield, who it turned out did not just have a poorly-designed and nonrandom study, but fabricated the data for it.

Reply

DD says:
2 April, 2020 at 3:09 pm

Where's the proof that he fabrication anything?

Reply

Guy Jones says:
31 March, 2020 at 11:08 am

Also, the author's addendum, linking to an article that calls Dr. Raoult "Trumpian" — a characterization that is no doubt intended as a smear/insult, though many rational and intelligent people would fairly consider it a compliment — is inappropriate, inasmuch as this is utterly irrelevant to the issue at hand, and, treads into the irrelevant area of airing out the author's manifestly subjective political biases.

Reply

Anonymous says:
31 March, 2020 at 12:04 pm

I almost always valued and appreciated Derek's articles, both for medical science information and viewpoints. I understand that sometimes it can be difficult to set aside one's political views even in scientific matters and commentaries. Having said that, his personal political biases clearly (and sadly) shone through in the above addendum.

Reply

Hix says:
31 March, 2020 at 1:52 pm

It is a bit much, insofar as Dr. Raoult doesn't appear to be as big of a fraud.

Reply

Anonymous says:
1 April, 2020 at 9:51 am

"many rational and intelligent people would fairly consider it a compliment"

Citation needed

"The percentage of patients with detectable viral RNA for SARS-CoV-2 was similar in the lopinavir–ritonavir group and the standard-care group on any sampling day (day 5, 34.5% vs. 32.9%; day 10, 50.0% vs. 48.6%; day 14, 55.2% vs. 57.1%; day 21, 58.6% vs. 58.6%; and day 28, 60.3% vs. 58.6%)." Cao et al, NEJM 2020.

"A rapid fall of nasopharyngeal viral load tested by qPCR was noted, with 83% negative at Day7, and 93% at Day8." Gautret, Raoult et al. Int J Antimicrob Agents. 2020

These are the main and only relevant arguments, the rest is bullshit. I am afraid that your article is dedicated to "the rest", rather than to the relevant arguments.

If Dr. Raoult is lying on this data, he should be banned from the scientific world.

If he is not, you should be banned from giving your opinion on scientific facts.

Take care!

Reply

charlie says:
31 March, 2020 at 1:57 pm

Yes as I said above this is the critical (secondary) endpoint.

If we really believe that asymptotic patients are spreading the disease, this solves the problem.

I'd say Derek needs to suspend the comment section, although there is much to be learned it is toxic.

Reply

chezpaul says:
31 March, 2020 at 2:56 pm

French doctor Didier Raoult last covid-19 clinic tests:
hydroxychloroquine+azythromicine combination ->

2400 ppl covid-19 infected:
– 2399 cured
– 1 dead(84 year-old)

At what point will you guys admit that it works? And in 6 days.
You know that without treatment it takes 2 to 3 and even 4 weeks to get better.

Reply

Some idiot says:
31 March, 2020 at 3:09 pm

What was his control arm?

Reply

much better. Probably better enough to indicate strongly that it works — that seem quit a few standard deviations way from being a false hope. Unless ingoing patients can be shown to be cherry picked, they should have seen 36 die.

Reply

Some idiot says:
31 March, 2020 at 4:02 pm

A excellent point, and very, very important… Knowing the backgrounds of the patients etc. It should be noted that I am not accusing them of cherry-picking, but rather just that there may have been ***something*** about that group of patients that was a bit different. And without the data, we don't know. So yes, it is looking "interesting", but we still don't know yet…

Reply

Robert Westin says:
1 April, 2020 at 2:17 am

Was there a control arm for Parachutes? or a double blind trial?

Give the patient the choice, if they choose no, they are the control arm! Give the rest the Combo!

Reply

chezpaul says:
31 March, 2020 at 3:11 pm

And more positive news:
Italy now uses it on all patients.

https://www.trustnodes.com/2020/03/29/italy-finally-starts-mass-treatment-with-hydroxychloroquine

Reply

JOHN WAGNER says:
27 May, 2020 at 1:55 pm

Yeah. The whole point of this post was that there was insufficient scientific evidence that it worked. So great post substituting use vs. efficacy.
https://www.reuters.com/article/us-health-coronavirus-hydroxychloroquine/france-italy-belgium-act-to-stop-use-of-hydroxychloroquine-for-covid-19-on-safety-fears-idUSKBN233197

Reply

HCG says:
31 March, 2020 at 7:18 pm

Thanks, chezpaul, for bringing the Italian report to our attention. It highlights the anxiety, dilemma and desperation of physicians at the front of fighting the pandemic. I maintain that it is unethical to

HCG says:
31 March, 2020 at 7:46 pm

Summarizing: 1. HCQ & AZ are drugs that have been widely used in humans for decades; 2. the drugs are relatively innocuous; 3. pilot studies show that they are, in combination, efficacious in reducing SARSCoV2 shedding; 4. the virus is spreading rampantly, causing high morbidity & mortality. Raoult & Trump have not lost sight of these features. Armchair antiTrump critics shouldn't.

Reply

chezpaul says:
31 March, 2020 at 10:54 pm

What I find fascinating in all this is the I hate Trump. I really do, he's a horrible person, and if you like him, so are you. haha, not kidding. I just want to make that clear.
Anyway, I also happen to be french so I had been following Dr Raoult for at least 2 weeks before Trump came in and talked about him. It happened because Elon Musk tweeted about Dr Raoult and Sean Hannity talked about that tweet and the study and Trump saw it on Fox News. So all of a sudden it became "Trump's guy" and I was like what wait no!!! What the hell! Next thing you know, Democrats start bashing Dr Raoult. I'm like, damn you guys, he's the good guy.

Anyway, just shows you how lots of people are hating on Dr Raoult for the wrong reasons.

To top it off, he's dissed by the french government but not for his studies or his medicine, but because there is a feud between him and the wife of the health minister.. So you see, his studies still are able to go through all this extra layer of bullshit. Excuse my language.

Reply

Thomas Wallace says:
1 April, 2020 at 2:10 am

Here is an anecdotal report from a New Orleans ER Doctor who hasn't seen it work as part of a lengthy description of clinical experience with over 100 patients :

"Plaquenil which has weak ACE2 blockade doesn't appear to be a savior of any kind in our patient population. Theoretically, it may have some prophylactic properties but so far it is difficult to see the benefit to our hospitalized patients, but we are using it and the studies will tell. With Plaquenil's potential QT prolongation and liver toxic effects (both particularly problematic in covid 19 patients), I am not longer selectively prescribing this medication as I stated on a previous post."

After reading this and other items, I think the drug combo needs to evaluated using the currently ongoing trials, and Dr Raoult's work is irrelevant. People were using it before he promoted its use and people are continuing to test it. If it is effective then great. Otherwise move on and try more things. All this publicity is distracting if it doesn't work.

Unfortunately, if its early use helps, that is the sort of claim that requires a lot of more data. 4 out of 5 would have gotten better without it.

Reply

From my perspective, Dr. Raoult has hyped it to the extent it has been heavily used off label in the US. If it works as advertised, great. That will show up in the current ongoing trials. It may be much less effective than Dr. Raoult claims, and STILL reduce severity enough be valuable. Fortunately, we will know in a few days.
This is costing $20,000,000,000 / day roughly in the US to partially make up for lost wages. It is a lot bigger than personality. There is nothing to blunt this pandemic now other than brute force economic shutdown. Everyone wants something to work. If not this, something else.

Anyone currently convinced by Raoult's work should be confident it will be confirmed.

Reply

William Liljequist says:
1 April, 2020 at 2:10 am

I agree with Mr. HCG. I don't like Trump because he uses racism, attacks women, hates foreigners, pretends to be religioius, acts retarded, blows up over nothing, acts irrational, is mean-spirited, corrupt, refuses to be fair in any sense of the word, and is overall a shameful addition to the parade of pretzeldents in the USA. But, even a blind chicken can find a piece of corn, so, like a stopped clock he might be right, in his case, once or twice a week.

I am a non-expert with regard to medicines. But I can see myself arguing loudly that some cancer drug is more likely to kill you before it kills the cancer. I can see myself complaining that I could not even afford the cancer drug that might kill me first, because, being between jobs, you got either a COBRA coverage that costs $2,000 per month, or nothing. I got nothing.

So, would I try the Hydroxquine Azithromax combo is I were offered it, on a death bed, rattling with a lung on its last legs? Yeah I would. Wouldn't you? (Plus lungs don't have legs, but you knew that already.)
I'll try anything, in small doses at first, to see if it makes me die, and then more, to see if it works.
I would want MY doctor to be willing to try drugs in HIS/HER BODY first, to see how it works.
Doctors, eat your own cooking, and if you can't do that, get lost!

I am the kind of person who DOES NOT believe that US doctors are magically in the possession of the right knowledge, or that they are grand masters of doing the right thing for the patients. The reality simply looks so much different. I remember a book written by a doctor who himself became sick with cancer, and as soon as he experienced the US health system from the perspective of a patient, he got throughly disgusted with the fakery, white lies, pretense to be always right, that goes on in US medical circles. (To say nothing about the absurd insane cost Oi, now I said it) I forgot the name of the book and the name of the doctor, but that doesn't mean it doesn't exist. I am old, so I have earned the right to forget stuff!! OK!?

Apart from that, I know that good solutions can come from innocent bystanders, from mere remarks a person makes. Science is full of these accidental discoveries.
When I think about novel coronavirus, I brainstorm like this:

1) Since it seems to come from bats in China or from these weird pangolins (that look like a walking pine-cone) it sure would make sense to research the antibodies these creatures have developed. Because they were exposed to it the longest time, so.. like …think uuhm, like a scientist! Which I am not, but maybe you are?

the lungs? Nano-vaccine?

No, no, no, I do not specifically imagine that corona virus victims ought to be water-boarded with a mixture of distilled water, dish detergent and a drop of bleach, and then to be hung upside down like bats, the way they do, so as to drain that infected mess of fluid out of there. No, that would go too far.

Instead, I use excessive imagination only to directly download an image into your empty brains, so that a really smart medical mind may discover the genius in the idea, and ask him/herself with what actual means something like that could possibly be accomplished. Now do you get it?

3) Has it ever been tried to put corona virus victims into a coma, a deep sleep in which all life functions, including the excessive fluid production in the lungs, are slowed down to a minimum? I am just asking.

4) I have heard that people do not die of corona itself, but of the extensive and sustained over-reaction of the immune system. So, how many immunologists, and how many experts in allergy treatment are currently working on this? I am certain that there is way more professional knowledge out there than is being listened too.

5) And now it's getting weird: Juniper berries, pine extract, blueberries, blackberries, elderberries, as well as copper and zinc infusions of some sort come to my mind, out of the blue. Is there anything these things have in common? And how would they work against a virus? I have no idea how I came up with that stuff.

6) Every bug has a smaller bug that bugs him. Stone, paper, scissors.
Hmm, why do things that don't exist start wanting to exist? Here ends the brain tornado.

Reply

HCG says:
1 April, 2020 at 2:27 am

chezpaul, may have been, as a Frenchman, following Raoult for 2 weeks, but I, as a physician and microbiologist/virologist (but not French) have been following his work published in English for at least 2 decades, oblivious of his personality and character 'flaws'. The quality of work is stupendous. There may be deficiencies and dead-ends here and there. But remember that his group discovered, among all things, the Mimivirus, surely a very significant finding.

Should Robert Gallo be discredited entirely just because (other than the allegation of misappropriation) of his early mistake in characterizing HIV as an HTLV? Surely not.

So I agree with chezpaul let Raoult be.

As for Trump: regardless of his source of info re HCQ/AZ (how do you know it was all because he watched Fox News?) he was visionary and bold enough to say out loud: "what is there to lose"? Without his "touring," Raoult's work might not have been given the prominence or "notoriety" it now has, and the Italian and Malaysian governments (and in other countries) and the many desperate doctors in USA and elsewhere wouldn't have recently acted the way they did.

There may be better therapeutic or prophylactic agents, but will they be as cheap and convenient to administer as HCQ and AZ, both of which are pills? Note that Remdesivir is to be given IV and Kaletra is a liquid preparation for oral administration.

Sorry: “As for Trump: without his **”touting”** ……”

Reply

Sandy says:
1 April, 2020 at 2:53 am

Just mo, but given the history of pharmaceutical companies in the U.S., with the very recent opiate epidemic, the incredibly high price of insulin, the 300% + increase in the price of lifesaving ephinephrine etc, it seems likely that the real reason there is not a lot of high level pharmaceutical support for testing this drug is because it is cheap, and generic. A new antiviral, still under patent could make some company billions. This pill; it may indeed save lives, but it is not likely to be anything like as much of a moneymaker. This means that it is against the interests of those who want to make money with a new anti viral, to promote anything else, particularly something that may be both cheap and effective (only 5 dollars a pill!) . Whether Trump likes it or dislikes it, whether it is a money maker or not, we need this medication be judged only by whether or not it can help save lives.

Reply

Derek Lowe says:
1 April, 2020 at 9:35 am

You realize that controlled trials are underway and that drug companies themselves have announced donations of huge amounts of HCQ? Also consider that a new patented drug will not appear for years.

Reply

Sandy says:
1 April, 2020 at 10:31 am

Hi Derek,
Initially these drugs were being excluded from any federal trials, and as we can see a concerted effort was initially being made by many in the media(for some reason) , to indicate that they were deadly, unsafe to use, despite decades of long term use for lupus.
Once the cat was out of the bag, so as to speak, then (cough) it started getting added to protocols and trials. Before that happened, most likely a rush job would have been allowed on some new antiviral under compassionate use. It may still happen, if they can produce one that seems to work, though they probably aren’t going to be able to charge thousands a pill for the new anti viral, if the malaria drugs end up being effective at five dollars a pill..

Reply

Derek Lowe says:
1 April, 2020 at 10:40 am

When I say that a new antiviral would take several years, that *is* the “rush job”.

Reply

"The National Task force for COVID-19, constituted by Indian Council of Medical Research, has recommended the use of hydroxy- chloroquine as prophylaxis (preventive drug) of SARS-COV-2 infection for high risk population."

https://swarajyamag.com/insta/covid-19-india-recommends-hydroxychloroquine-as-prophylaxis-for-healthcare-providers-patient-family-members

Reply

peter mutaftschiev says:
1 April, 2020 at 5:03 am

So Pr. Raoult is a racist, a megalomaniac, and a potential sex offender? Anything else?
And all this reliable and objective info come from Google Translator?
Obviously being endorsed by Trump has become a methodological flaw in microbiology/ vaccine-testing protocols.
How scientific is that?
I'm not sure but it sure is scary.

Please refrain in the future.

Reply

Céc says:
4 April, 2020 at 6:53 pm

It looks as if the French "debate" has spread like Covid-19 all over the planet.
Pr Raoult is the object of an ideological "debate" here in France, and his team's work mocked and put down in such an a-scientific way by people claimed to be rational, it's amazing to watch, thinking that at the very same time, people ARE DYING…
I have seen Pr Raoult being CLEARLY anti-racist, accusing the French political elites of racism and discrimination against "Blacks and Arabs". That IS probably WHY he is being targeted as he is now.

Our current government doesn't rely on science AT ALL. They have an ultra-liberal agenda that makes them TOTALLY blind to reason and reality. They are liars and manipulators. Hmm, does that sound familiar? Thing is, Trump knows, has this antenna that tells him what's good for him crazy as he is. For once, he said something that was almost true.

Reply

Eric Oldfield says:
1 April, 2020 at 9:02 am

I was looking around the literature and found that there are quite a few interesting papers on how AZM might function, other than just being an antibacterial.

Seems that:
It reduces IL-6
It is anti-inflammatory (several papers)
Polarizes macrophages to M2 which is anti-inflammatory

Of course, maybe CQ+AZM may not actually work in big clinical trials, but there seems to be quite a bit of data on why AZM (but probably not many other antibiotics) might function to reduce IL-6, be anti-inflammatory, affect lysosomes/virus release, target or polarize macrophages, as well as be an anti-bacterial.

Reply

JasonP says:
1 April, 2020 at 11:12 am

Hi Derek – an observation if I might be so bold?

If memory serves some time back a decision was made to turn this blog over to the SARS-CoV-2/COVID-19 pandemic based on the need for rational information and discussion. I applaud that decision.

Now the reality check. As evidenced from many of the new comments here and after listening to the President's update yesterday, there is another epidemic out there – IGNORANCE (lack of education). I feel particularly well qualified to make this pronouncement. But also observe that this isn't a terminal condition and there is a well known "cure" – education.

So what can a guy who writes scientific books for the non-scientist, his learned colleagues and fellow drug researchers do to help this second epidemic here? Can there be more educational responses on a basic level? Can tones shift from talking down to helping and educating? Can references to points be provided and not just papers that a rife with technical, biomedical and chemistry jargon? Can we self censor ourselves away from a normal human emotion or reaction of proffering political views and taking sides?

I have found many useful posts here and great links, just seems like not everyone has been helped like I have and that saddens me for the opportunity missed.

Thanks again for the blog and the forum!

Reply

Douglas Fox says:
1 April, 2020 at 11:32 am

I think a lot of the re-purposed drug leads, and mirages, will end up being related to lysosomal accumulators and inducers of phospholipidosis. How much is there is hard to say, but I think it is worth a closer look.

https://www.linkedin.com/pulse/bunch-re-purposed-drugs-showing-some-activity-against-douglas-fox

Reply

chezpaul says:
1 April, 2020 at 4:23 pm

Seems like change is in the air…

Nevada governor is allowing chloroquine for coronavirus inpatients, office says
https://justthenews.com/government/federal-agencies/nevada-governor-will-allow-chloroquin-be-prescribed-covid-19

Hydroxychloroquine is effective in first randomized trials (a trail from March 22nd that people don't talk about)
https://www.medrxiv.org/content/10.1101/2020.03.22.20040758v1.full.pdf

Malaria Drug Helps Virus Patients Improve, in Small Study
https://www.nytimes.com/2020/04/01/health/hydroxychloroquine-coronavirus-malaria.html?action=click&module=RelatedLinks&pgtype=Article

Dr. Vladimir Zelenko has now treated 699 coronavirus patients with 100% success using Hydroxychloroquine Sulfate, Zinc and Z-Pak
https://techstartups.com/2020/03/28/dr-vladimir-zelenko-now-treated-699-coronavirus-patients-100-success-using-hydroxychloroquine-sulfate-zinc-z-pak-update/

I could go on but what's the point.
`

Reply

ab says:
2 April, 2020 at 1:15 pm

Chezpaul, you seem to think Derek and others DON'T WANT CQ and HCQ to work. That is not the case. Despite what you obviously believe about the pharmaceutical industry and the scientists that work within it, we all will dance on the ceiling if either of these treatments significantly reduce morbidity or mortality. It is our brothers and sisters and mothers and fathers that are being intubated and dying. It is our friends losing jobs and wondering how they'll support their families. It is our healthcare ecosystem and the opportunities within that will dry up and disappear when VC funding is nonexistent because people have no money to invest. The pharmaceutical industry was doing just fine before coronavirus – there is plenty to work on and make money on, believe me.

The fact is, the available data is so far inconclusive regarding CQ and HCQ. We need more data. Work in this industry long enough and you'll see, over and over, examples of drugs that 'obviously should work' and 'obviously did work' … right up until a controlled study was done. This eventuality is not without harm. You seem to miss that point. Every patient dosed with something that doesn't work is NOT dosed with something that might. The sooner you can know whether something is working, the better off everyone is.

As Derek pointed out, even A-holes end up being right sometimes. And that may very well be the case here. Time will tell.

Reply

HCG says:
3 April, 2020 at 2:43 am

So, ab, if – today – your "brothers and sisters and mothers and fathers," are found to be infected but not yet "intubated and dying," and HCQ+AZ are offered to them, will you still say "we need

As President Trump asked, “What is there to lose?”

Reply

ab says:
3 April, 2020 at 10:44 am

Maybe you could point out where I expressed ‘a raging objection to deploy[ing] these pills.’

I’ll wait.

Reply

HCG says:
3 April, 2020 at 10:25 pm

The scatalogical allusion to A-holes

senecagriggs says:
4 April, 2020 at 12:05 pm

Orange Man Bad – On that basis alone you can reject the drug combo – dryly

Reply

SS says:
1 April, 2020 at 4:26 pm

The hyperlink said something about one would think there would be anecdotal evidence coming from [off label use in] NYC.

But with over 60,000 cases, my understanding is that Cuomo has BANNED DOCTORS IN NEW YORK FROM PRESCRIBING IT OUTSIDE OF SMALL STUDIES.

Reply

HCG says:
2 April, 2020 at 8:11 am

For an even-handed opinion from a practising ID physician (French!), see the Medscape link:
https://www.medscape.com/viewarticle/927758

The Governor of Michigan has just backtracked on her ban of HCQ usage for COVID19. Nothing heard from fellow anti-Trumpian Governor of Nevada who imposed a similar ban.

Reply

drsnowboard says:
2 April, 2020 at 9:49 am

“Today, the only thing we have advanced on is the “safety” of hydroxychloroquine, the low risk to the general population.... On the other hand, we have still not made any progress on the evidence

2 April, 2020 at 8:16 am

Have just noted from chezpaul's latest posting that the Governor of Nevada has also lifted his ban. Indeed, the tide is turning.

Reply

Bob Guccione says:
2 April, 2020 at 12:15 pm

The real magic drug is hydrazine sulfate. It cures cancer, so it is sure to work against the covid-19 virus.

Reply

chezpaul says:
2 April, 2020 at 3:57 pm

I'm done posting here.
Today my twitter feed is full of doctors saying it's been working miracles for them and this is worldwide.
If that's not enough for you skeptic minds, I'm not the one who will try to change that.
Good luck to everyone.
Stay safe

Reply

TANSTAAFL says:
2 April, 2020 at 4:00 pm

People are dying.

But let's them die.

Because SCIENCE!!!!!!!

What happened to the courage real scientists used to display?

Reply

Johann Amadeus Metesky says:
2 April, 2020 at 4:20 pm

"Update: more at Slate, who refer to Raoult as "Trumpian", which I have to say is an adjective that I had considered as well."

With that statement you undercut your credibility. One can help but wonder if this post is more about rigorous science or discrediting President Trump.

Reply

Derek Lowe says:

Johann Amadeus Metesky says:
2 April, 2020 at 8:33 pm

Ultimately, you're discrediting yourself.

Reply

Anonymous says:
3 April, 2020 at 11:58 am

As I commented in an earlier post, I almost invariably valued your articles, both with regards to medical science content and viewpoints. However, it is totally unnecessary to inject your personal political views/biases as a commentary to the above addendum. Contrast this with your most recent article "Antibody Tests for the Coronavirus", wherein so much useful information is disseminated in an adulterated form to help the audience (especially the layman type) understand the underlying scientific basis of a diagnostic test of current importance. It is this type of article, I dare say, that the vast majority of us would appreciate and value.

Reply

Anonymous says:
3 April, 2020 at 12:03 pm

correction: unadulterated (not adulterated) form

Reply

Nick456 says:
5 April, 2020 at 12:23 am

The article should be in people magazine for high IQ edition, most of it is feelings from the author about Raoult character. Newton would also have been dismissed based on his extravagant characteristics by our frivolous author if he lived back then.

The only real asshole is the author of this article

Reply

Barry says:
5 April, 2020 at 2:52 am

It may have escaped your attention that this is Derek's 'blog. If you enjoy it, read it! If you have knowledge of the field to contribute, contribute! If you've come to vent, you're welcome to write your own 'blog of course. Maybe your mother will bother to read it.

Reply

Nicolas says:
5 April, 2020 at 3:08 am

FACTS:

– This is used by multiples doctors in Italy, France, US and so on,as well as the European Discovery study

Clearly, if used carefully, the ratio Benefits/Risk is positive or at least neutral.

WE HAVE NO TIME TO MAKE PLACEBO Study when you have thousands of people dying.
At one time Science has to be Fast and take some part of risks.

At the end :
If it works it will have save numerous lives
If it fails, every thing would have been tried

Reply

Elliott says:
5 April, 2020 at 5:18 pm

At the end :
If it works it will have save numerous lives, and caused many to die from toxic side effects that were missed due to inadequate testing.
If it fails, every thing would have been tried, except for those other possibly more effective treatments that were missed because finite $$ and time was wasted upon this one.

there. fixed that for you.

Reply

kervennic says:
5 April, 2020 at 5:29 am

Civilisation fosters the rise of assholes. If you are humble, rely on facts and suggest long term and painfull strategies, you will never get far.

This is an inbuilt mechanism that assures that civilisations are in check and collapse when they become too destructive for their environement. Just like virus for the human flock.

So let's go for plaquenil. The virus will mutate and resistant bacteria will thrive. By the way, Raoult is a fierce opponent of the notion of antibioresistance. He is the guy we need to put the oppressive french state to the knees and he seems, in the present panic, to get a wider audience by the day.. 😈

Reply

chemist says:
7 April, 2020 at 3:22 am

Hey Derek, so who told you to attack Dr. Raoult's character? Why not just deal with the science? Inquiring minds genuinely want to know.

Reply

PK CQ says:
7 April, 2020 at 3:54 am

doesn't. If not, you have blood on your hands(??). Obviously this is not a normal situation, but it sounds like you could make a lot of money selling some of the commentators here tiger-repelling rocks.

Reply

M. Eiford says:
7 April, 2020 at 1:39 pm

The study was IN FACT random……the virus selects RANDOMLY,,,the results are of a RANDOM selection!
And they WORK what is your problem?
Maybe the Dr. Did not genuflect to the Elits?

Reply

JasonP says:
9 April, 2020 at 7:44 am

@M. Eiford Me thinks what a "randomized" trial means is that the patients who receive the intervention are selected randomly. And if a gold standard double blinded test, then neither the patient nor the researchers/ docs know who was randomly selected.

Reply

Earl says:
8 April, 2020 at 2:52 am

Does anybody care to comment on Doctor Stephen Smith's recent work with hcq combo.?
As a confident infectious disease doctor he is come up with the odds of his study at less than one of 1% to be successful. Doesn't appear he needs a clinical trial for those kind of odds. The majority of his patients were of the high-risk group.

Reply

nouse123 says:
9 April, 2020 at 6:22 am

I am also not convinced that HCQ is helping much. Some of its side effects are extremely severe, and the evidence published so far is not too convincing. But (and this is important) it does warrant enough optimism to do further research, which is now luckily carried out. One arm of a german multi-center trial just started is using HCQ (but afaik without antibiotics).

I wonder why this post just did not stop at discussing the science of the two french mini trials. I am very left-leaning and anti-trump but seeing all my skeptical heroes like SR, orac and others jump on these studies just because orange man endorsed it, really dissappoints me.

It is almost (and i dont say this lightly) that these people do not want HCQ to work!

Two weeks before drumpf did, a leading german virologist (Schmidt-Chanasit) said on german media that HCQ is very promising. Other scientists have endorsed it as well, before. They might not

(which might not be the case here! <- that is the important part)?
But one thing is for sure: If trump wouldnt have so blatantly sold HCQ as a miracle cure, there wouldnt be this anti-raoult campaign going on.

Reply

chemist says:
9 April, 2020 at 5:31 pm

"drumpf"
real mature comment there buddy. opinion discarded

Reply

HCG says:
9 April, 2020 at 6:24 am

Has social distancing ever been investigated in a controlled study?

Reply

HCG says:
9 April, 2020 at 6:27 am

The "Swedish hospitals ditching HCQ" report is when I read it, about 1 hospital, reported by 1 doctor, and supported anecdotally by 1 patient.

Reply

JP Leonard says:
10 April, 2020 at 5:15 am

IMO Raoult is trying to make the best of a half recipe. He's missing the better half, which is the zinc. He's ahead of most of the crowd, but he's 10 years behind the best.
Zinc therapy for coronaviruses using a transporter chemical or ionophore was proposed already in Nov. 2010 by Dutch researchers in their article "Zn(2+) [zinc ion] inhibits coronavirus … and zinc ionophores block the replication of these viruses in cell culture."[3] The example they gave of a "shuttle" chemical was pyrithione, rather than chloroquine (CQ) or HCQ, but the principle is the same.

Reply

JC says:
13 April, 2020 at 12:05 am

Dear Derek Lowe,
And to all those sharing a similar stance.

Your lack of contextual knowledge in so many aspects of the issue is simply staggering.
So many ad hominem arguments, most being disguised ad personam attacks.
If you have proved one thing is that you are neither a physician nor a scientist.

Let's resume the situation shall we ?

(1) The debate for researchers in France and in francophone countries is not about Pr. Raoult and the Chloroquine/Azithromycin but about emergency medicine and field research on one side versus long-term research (mostly pharmaceutical, which is not science but laboratory work) + theoretical medicine on the other side.

We need both, just not at the same time and more importantly not for the same purpose.
More importantly, it is not emergency medicine which must follow the research laboratories but the reverse.

As a reminder, Pr. Henri Laborit said in "La Colombe Assassinée" (The Murdered Dove) in 1983 "the great advances in modern medicine, as they say, are just the great advances in emergency medicine"
https://en.wikipedia.org/wiki/Henri_Laborit
This remains true today as it was 70 years ago and it is not about to change anytime soon.

Back to Pr. Raoult. His methodology and his work are not devoted directly to pharmaceutical or chemical research (those research, while important, are not scientific research) but to direct evaluation and action as a physician and field researcher. As it should be.

So if you want to criticize him in this context, I will read what you have to say. Just remember that while Pr. Raoult isn't perfect, his h-index rank is among the best and you can't just throw away his work so easily. You ought to ask yourself some questions on why he does things like he does and pay attention to what he is saying.
https://www.webometrics.info/en/hlargerthan100

(2) Pr. Raoult does not make the promotion of the chloroquine per se. He is making the promotion of any medication where molecules have a long term known toxicity, are widely accessible and are inexpensive because it is his duty to do so -and the duty of any physician who has some decency-.

If you listen to him and read him carefully, you will see that he never says anything else and he has been exceptionally constant and steadfast on the subject for more than 4 months now.
https://youtu.be/a2HgVJpVWIc
https://youtu.be/TaV6sj8TuWQ
https://www.youtube.com/user/ifr48/videos?view=0&sort=p&flow=grid
https://www.mediterranee-infection.com/videosetcours/bulletin-dinformation-scientifique-de-lihu/

And many other honest physicians, researchers and scientists are doing the same. This is Science in action: individual inquiry, self-questioning and constant reassessment.
https://www.youtube.com/watch?v=jrBVdBfLvkw
https://www.youtube.com/watch?v=k9GYTc53r2o
https://www.youtube.com/watch?v=LsExPrHCHbw
https://www.youtube.com/watch?v=_5wn1qs_bBk
https://www.youtube.com/watch?v=p_AyuhbnPOI

(3) Like Pr. Chomsky, Pr. Raoult is hostile to probabilistic methodology and frameworks in all the sciences for being unscientific. Anyone a bit serious on the subject ought to wonder why before defending any other stances.

(4) Like for the climate crisis or the SARS crisis, rest assured that the majority is like you, ignorant

say that there is no such a thing as a scientific method. An upstream method rather than a downstream method is simply not scientific. Sure enough, states, international societies of this or that and pharmaceutical laboratories tend to reverse this order but doing so only shows that they are not part of the scientific work. They all failed to understand their place. Again… https://youtu.be/BS7bkOYM2Do?t=55

Reply

Vayare says:
27 April, 2020 at 8:27 pm

Thanks. So good content

Reply

Mani says:
27 April, 2020 at 8:28 pm

Thanks. So good content

Reply

Joe Griffin says:
29 April, 2020 at 1:07 am

What happened?
Has everyone conceded their hate for President Trump and Pr. Raoult and admit your “science “ has blinded you against the best solution.
Move on or join the winners!

Reply

Nathan says:
29 April, 2020 at 1:41 am

This is a bizarre post. It purports to be a scientific analysis, but it includes random musings about whether it would be “a more simple world if assholes were always wrong about things,” and rumors about sexual harassment, and what someone somewhere supposedly said about the atmosphere in the lab, and so on. Derek Lowe seems unable to focus on science or rational critique. It’s like listening to a guy in a bar, on his fifth drink, saying what he “really thinks” to his buds from the hospital. Dr. Raoult’s personality, or allegations about it, are the focus, but I don’t know his personality. Mr. Lowe’s scurrilous character is sufficiently on display here not to be in doubt.

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