January 8, 2021

Re: Successful early treatment of COVID-19

Dear Dr. Bray:

I am an internist/geriatrician practicing in central Virginia since 1977. I have a large practice that includes ALF's and nursing homes, and I am the medical director of two SNF's in Charlottesville, Virginia.

Early on in the Covid pandemic, two nursing homes in our general area, one in Harrisonburg and one in Richmond, were slammed with COVID 19 cases, resulting in 20-30 % mortality. I became aware in early April of the report out of Monash University of their in vitro study of Ivermectin which you discuss in the June 2020 Antiviral Research.

Like many clinicians, I worried about what to do if and when my facilities became infected. There had been a lot of talk worldwide regarding hydroxychloroquine which did not appeal to me for various reasons. But Ivermectin did as I had had a lot of experience with it in overcoming serious scabies infestations in the nursing homes, one in which, under the direction of a dermatology consultant and the Health Department, we ended up treating the entire staff and all the residents to achieve a final eradication (with no side effects).

When the first (of six) facilities where I have patients developed a Covid outbreak in late April, I felt I had two choices: either provide my patients with the standard of care, basically first aid, with Tylenol, oxygen and monitoring, until they became sick enough to be sent to the hospital, or try something more proactive with the hope of the patients not becoming so ill and then losing their lives.

I put together a regimen that I felt was very low risk to anyone, but at least had a reasonable basis for being effective. I reasoned that if I could slow the virus down enough for the patient's own defenses to do their job and not become overwhelmed, the patients could keep from developing severe hypoxic respiratory failure and dying like was being reported in other centers. This is exactly what the researchers from Australia describe in their discussion of Ivermectin as a host-directed agent (HDA) in their response to the other two critical responders in your June article.

I understand that Ivermectin has gotten little traction here in the U.S. I believe in August the NIH came out specifically against the use of Ivermectin as a treatment for Covid. There are now some decent studies, most from other countries that would supports use.

While we can see a light at the end of the tunnel with the vaccines now becoming available we still will see at least 150,000 more Americans die before the vaccination program can be played out. I think it is inappropriate for us to not explore this avenue and focus only on development of expensive alternatives such as monoclonal antibodies, especially when Drs. Kim and Fauci discuss in JAMA the need for a Covid treatment that can be administered early.

I would like to summarize my experience for you below.

To date I have had four nursing homes and two assisted living facilities with outbreaks.

The first nursing home had 30 residents and all became infected in late April. I used vitamins C, D3 and zinc with Ivermectin (12 mg on day one and eight -- this is the regimen I used for the scabies as suggested by my dermatology consult) and zithromycin and Lovinox. Only one patient was hospitalized and that

was for severe diarrhea. He returned to the nursing home and did well. No patient suffered respiratory failure. Many did require low flow O2 to keep sats above 92 %.

There were seven deaths all together. One was a 104 year old who had a stroke. Five of the other six patients were hospice patients who had anorexia and stopped eating and drinking. Their families would not allow us to provide IVF support which I find essential to getting many through the anorexic phase of their illness.

The first six patients diagnosed within the first several days with PCR testing did well, including the one with diarrhea. One in that initial group was a declining hospice patient that received no support and died. There was then an eight day delay before the health department was able to get the rest of the facility tested, and I believe this delay in being able to start treatment contributed to some of the mortality.

The second facility was an assisted living hit by Covid in June. When a patient who was thought to have urosepsis was sent to the ER and proved to have Covid, the entire population was started on Vit C, Vit D3 and zinc. Over the next three weeks the facility was re-tested weekly. As patients proved to be positive for Covid, they received Ivermectin, 12mg days 1 and 8, and Doxycycline, 100 mg bid x 10 days. I switched to doxycycline as I thought it would be safer and this decision was reinforced by the Chakroborty (1) article suggesting that Covid facilitates anaerobic bacteria getting into the lung and helping to trigger the more serious complications of the Covid infection: most of the bacteria mentioned are generally sensitive to doxycycline.

Three patients died at the beginning of the outbreak before ever getting Ivermectin and doxycycline. An additional thirty-four out of 50 patients tested proved positive, all survived, and none suffered severe respiratory failure. No respirators! Only a few received dexamethasone. I feel strongly that the early treatment made the difference.

The fourth facility, also a small ALF, had nine out of 14 residents test positive in July. Two died. They both were hospice patients who had stopped eating two weeks before contracting Covid. All patients received the vitamins, zinc, doxy and Ivermectin. No one went to the hospital and no one developed severe hypoxic respiratory failure.

The fifth and sixth are NH/SNF's where I am the medical director. Over six-eight weeks in August, about 25 patients in each developed Covid in small groupings. As soon as an individual was found positive in a facility (always a staff member), zinc and vits C and D3 were started throughout the entire resident populations (100 in one and 120 in the other).

As residents proved positive, Ivermectin, doxy and Lovinox 40mg was started. No one suffered respiratory failure. No one needed a respirator. Very few required dexamethasone. One facility had one death in someone who suffered a CVA. The other facility lost one who had been on comfort care for the previous six months and received no support. One patient, a long-standing poorly-controlled diabetic, was found dead in the middle of the night without ever dropping sats or offering any complaints earlier in the evening.

The third facility was the most interesting. In July, a NH/SNF with 140 beds was overwhelmed with Covid spreading rapidly throughout its four units. I am the attending for about half of the patients and the medical director has the other half. There were over 100 patients testing positive. Twenty-two patients died, three of these went out to the hospital early on and had received no treatments.

My nurse practitioner helped me start the zinc and vitamins as early as possible and then Ivermectin, doxycycline and Lovinox as patients turned positive. The medical director chose to begin my protocol as

well. Eventually, as it seemed the number infected was involving so many, I ended up treating nearly all of my patients with the Ivermectin and doxy and did not wait for them to turn positive. At the recommendation of some physicians who noted the medicines were not "standard of care," the medical director stopped the doxycycline and Ivermectin after four days in his group of patients. Of the 19 patients who died only two were mine. The other 17 were his.

Of the two of mine who died, one was a fairly demented patient whose family would not allow us to use IVF. The other was a 100 year old with DM and CKD who went into renal failure. None of my patients suffered severe respiratory failure (a few did go out to the hospital but came back in a few days). There were certainly a number -including a 106 year old - who required IVF support for two to four days to get through it. I would add that we did use dexamethasone in those who had respiratory symptoms. We never needed more than low flow O2. Again, no respirators needed.

I have no doubt that the regimen, when started early, worked and saved lives in a very at-risk population.

I understand I am a bit out on a limb, but the results are the results. It's not a scientific study of a regimen and is more anecdotal. I would argue that to some extent the third facility was a poor man's control. I would also argue that the NIH should look at Ivermectin more openly. Certainly a proper double-blind study is needed, not only to save lives down the stretch but it would be invaluable to show one way or the other whether there is an easily obtained oral treatment for the next RNA virus that brings another pandemic. Those who have dismissed Ivermectin out of hand, arguing it would be impossible to achieve in vivo tissue concentrations similar to the in vitro study from Australia, have it wrong. Clinically, the drug works and saves lives at much lower concentrations. Of course, we all want to hang our hats on well designed, well conducted double blind studies but we are losing Americans at the rate of 4000 lives per day. If you want to study something, figure out why my patients do so well. I haven't just been lucky.

To date, I have treated over 200 high-risk Covid patients without needing heroic respiratory support. I'm currently dealing with a seventh nursing home that is in the middle of a horrible outbreak with nearly 60 positive cases and growing daily. All of my patients are on treatment and so far doing well.

My hope is that someone at the NIH will take a serious look at Ivermectin in the treatment of COVID - 19. I appreciate your attention, and would welcome any comments or feedback. Thank you very much.

Sincerely,

David L. Chesler, M.D.

Email: (redacted)
Cell: (redacted)

Cc: Anthony Fauci, M.D.

(1)Chakraborty, 2020; OSF Preprints, February, https://doi.org/10.31219/osf.io/usztn https://osf.io/usztn/